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FEDERAL REGISTER

Vol. 88 Thursday,
No. 86 May 4, 2023

Pages 28381–28984

OFFICE OF THE FEDERAL REGISTER

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This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents.

DEPARTMENT OF AGRICULTURE

Office of the Secretary

7 CFR Part 1

[Docket No. USDA–2022–0004]

Review and Issuance of Agency Guidance Documents; Removal of Regulations

AGENCY: Office of the Secretary, USDA.

ACTION: Final rule.

SUMMARY: The U.S. Department of Agriculture is amending its administrative regulations by removing the procedural regulations for the review and issuance of agency guidance documents. Those regulations were issued in accordance with Executive Order (E.O.) 13891, which was revoked January 20, 2021, by E.O. 13992. This final rule implements the direction in section 3 of E.O. 13992 to rescind any regulations that were issued to implement or enforce E.O. 13891.

DATES: Effective May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Mr. Stephen O'Neill, Office of Budget and Program Analysis, USDA, 1400 Independence Avenue SW, Washington, DC 20250–1400, (202) 720–0038 or *stephen.oneill@usda.gov.*

SUPPLEMENTARY INFORMATION: In a final rule published in the **Federal Register** on June 3, 2020 (85 FR 34085–34087, Docket No. USDA–2020–0006), and effective on July 6, 2020, the U.S. Department of Agriculture (USDA) amended its administrative regulations by adding procedural regulations for the review and issuance of agency guidance documents, as mandated by Executive Order (E.O.) 13891. Those regulations were added to the Department's regulations in title 7, part 1, as a new subpart Q, ''Review and Issuance of Agency Guidance Documents'' (§§ 1.900 through 1.911).

E.O. 13992 of January 20, 2021, revoked E.O. 13891 among other regulations-related executive orders listed in section 2 of E.O. 13992. Section 3 of E.O. 13992 directed the heads of agencies to ''rescind any orders, rules, regulations, guidelines, or policies, or portions thereof, implementing or enforcing the Executive Orders identified in section 2 of this order.''

Therefore, in accordance with E.O. 13992, the Department is removing the regulations it issued under E.O. 13891. This final rule removes, in their entirety, the regulations in 7 CFR part 1, subpart Q.

This rule relates strictly to internal Departmental management. Therefore, pursuant to 5 U.S.C. 553(a)(2), notice of proposed rulemaking and opportunity to comment are not required.

Executive Order 12866

This regulatory action does not meet the criteria for significant regulatory action pursuant to Executive Order 12866, Regulatory Planning and Review.

The regulations removed by this rule were related the internal management of USDA. As such, they were for the use of USDA personnel only and did not create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its agencies or other entities, its officers or employees, or any other person. Accordingly, we expect the economic impact of removing those regulations, if any, to be minimal.

Regulatory Flexibility Act

The provisions of the Regulatory Flexibility Act relating to an initial and final regulatory flexibility analysis (5 U.S.C. 603, 604) are not applicable to this final rule because USDA was not required to publish notice of proposed rulemaking under 5 U.S.C. 553 or any other law. Accordingly, a regulatory flexibility analysis is not required.

Paperwork Reduction Act

This final rule does not contain information collection requirements that are not already required by law or not already approved for use. Accordingly, the review provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) and its implementing regulations at 5 CFR part 1320 do not apply.

List of Subjects in 7 CFR Part 1

Administrative practice and procedure, Antitrust, Claims, Cooperatives, Courts, Equal access to justice, Fraud, Freedom of information, Government employees, Indemnity payments, Lawyers, Motion pictures, Penalties, Privacy.

Therefore, for the reasons set forth in the preamble, the Department is amending part 1 of title 7 of the Code of Federal Regulations as follows:

PART 1—ADMINISTRATIVE REGULATIONS

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

Authority: 5 U.S.C. 301, unless otherwise noted.

Subpart Q—[Removed]

■ 2. Subpart Q, consisting of §§ 1.900 through 1.911, is removed.

Anthony Shea,
Acting Deputy Secretary, U.S. Department of Agriculture.

[FR Doc. 2023–09531 Filed 5–3–23; 8:45 am]
BILLING CODE 3410–90–P

DEPARTMENT OF ENERGY

10 CFR Part 431

[EERE–2021–BT–TP–0007]

RIN 1904–AE67

Energy Conservation Program: Test Procedure for Refrigerated Bottled or Canned Beverage Vending Machines

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Final rule.

SUMMARY: The U.S. Department of Energy (DOE) amends the test procedures for refrigerated bottled or canned beverage vending machines (BVMs) to reference the latest version of the industry standard, while maintaining certain provisions specified in the current DOE test procedure. DOE also provides setup instructions for non-beverage shelves, updates the lowest application product temperature definition and test instructions, specifies setup instructions for refrigeration leak mitigation controls, and removes the obsolete test procedure.

DATES: The effective date of this rule is June 5, 2023. The amendments will be

mandatory for equipment testing starting October 31, 2023.

The incorporation by reference of certain material listed in the rule is approved by the Director of the Federal Register on June 5, 2023. The incorporation by reference of certain other material listed in the rule was approved by the Director of the Federal Register on March 8, 2016.

ADDRESSES: The docket, which includes **Federal Register** notices, public meeting attendee lists and transcripts, comments, and other supporting documents/materials, is available for review at *www.regulations.gov.* All documents in the docket are listed in the *www.regulations.gov* index. However, not all documents listed in the index may be publicly available, such as those containing information that is exempt from public disclosure.

A link to the docket web page can be found at *www.regulations.gov/docket/EERE-2021-BT-TP-0007.* The docket web page contains instructions on how to access all documents, including public comments, in the docket.

For further information on how to review the docket, contact the Appliance and Equipment Standards Program staff at (202) 287–1445 or by email: *ApplianceStandardsQuestions@ee.doe.gov.*

FOR FURTHER INFORMATION CONTACT:

Mr. Bryan Berringer, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE–5B, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 586–0371. Email: *ApplianceStandardsQuestions@ee.doe.gov.*

Ms. Sarah Butler, U.S. Department of Energy, Office of the General Counsel, GC–33, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 586–1777. Email: *Sarah.Butler@hq.doe.gov.*

SUPPLEMENTARY INFORMATION: DOE maintains a previously approved incorporation by reference and incorporates by reference the following industry standards into part 431:

AHAM HRF–1–2016, ''Energy and Internal Volume of Refrigerating Appliances.''

ANSI/ASHRAE Standard 32.1–2022, ''Methods of Testing for Rating Refrigerated Vending Machines for Sealed Beverages,'' approved December 30, 2022.

Copies of AHAM HRF–1–2016 can be purchased from the Association of Home Appliance Manufacturers (AHAM), 1111 19th Street NW, Suite 402, Washington, DC 20036, 202–872–5955, *www.aham.org/AHAM/Store.*

Copies of ANSI/ASHRAE Standard 32.1–2022 can be purchased from the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Inc., 180 Technology Parkway NW, Peachtree Corners, GA 300092, (800) 527–4723, *webstore.ansi.org.*

For a further discussion of these standards, see section IV.N of this document.

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I. Authority and Background

DOE is authorized to establish and amend energy conservation standards and test procedures for BVMs. (42 U.S.C. 6295(v); 42 U.S.C. 6293(b)(15)) DOE's energy conservation standards and test procedures for BVMs are currently prescribed at subpart Q of 10 CFR part 431. The following sections discuss DOE's authority to establish test procedures for BVMs and relevant background information regarding DOE's consideration of test procedures for this product.

A. Authority

The Energy Policy and Conservation Act, Public Law 94–163, as amended (EPCA),[1] authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B of EPCA [2] established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency. These products include BVMs, the subject of this document. (42 U.S.C. 6295(v)) [3]

The energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA specifically include definitions (42 U.S.C. 6291), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), energy conservation standards (42 U.S.C. 6295), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

The testing requirements consist of test procedures that manufacturers of covered products must use as the basis for (1) certifying to DOE that their products comply with the applicable energy conservation standards adopted

[1] All references to EPCA in this document refer to the statute as amended through the Infrastructure Investment and Jobs Act, Public Law 117–58 (Nov. 15, 2021), which reflect the last statutory amendments that impact Parts A and A–1 of EPCA.

[2] For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

[3] Because Congress included BVMs in Part A of Title III of EPCA, the consumer product provisions of Part A (rather than the industrial equipment provisions of Part A–1) apply to BVMs. DOE placed the regulatory requirements specific to BVMs in 10 CFR part 431, ''Energy Efficiency Program for Certain Commercial and Industrial Equipment,'' as a matter of administrative convenience based on their type and therefore refers to BVMs as ''equipment'' throughout this document. Despite the placement of BVMs in 10 CFR part 431, the relevant provisions of Title A of EPCA and 10 CFR part 430, which are applicable to all product types specified in Title A of EPCA, are applicable to BVMs. *See* 74 FR 44914, 44917 (Aug. 31, 2009) and 80 FR 45758, 45759 (Jul. 31, 2015). The regulatory provisions of 10 CFR 430.33 and 430.34 and subparts D and E of 10 CFR part 430 are applicable to BVMs. Because the procedures in 10 CFR parts 430 and 431 for petitioning DOE for obtaining a test procedure waiver are substantively the same (79 FR 26591, 26601 (May 9, 2014)), the regulations for applying for a test procedure waiver for BVMs are those found at 10 CFR 431.401 rather than those found at 10 CFR 430.27.

under EPCA (42 U.S.C. 6295(s)), and (2) making other representations about the efficiency of those products (42 U.S.C. 6293(c)). Similarly, DOE must use these test procedures to determine whether the products comply with any relevant standards promulgated under EPCA. (42 U.S.C. 6295(s))

Federal energy efficiency requirements for covered products established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6297) DOE may, however, grant waivers of Federal preemption for particular State laws or regulations, in accordance with the procedures and other provisions of EPCA. (42 U.S.C. 6297(d))

Under 42 U.S.C. 6293, EPCA sets forth the criteria and procedures DOE must follow when prescribing or amending test procedures for covered products. EPCA requires that any test procedures prescribed or amended under this section shall be reasonably designed to produce test results which measure energy efficiency, energy use, or estimated annual operating cost of a covered product during a representative average use cycle (as determined by the Secretary) or period of use and shall not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3))

In addition, EPCA requires that DOE amend its test procedures for all covered products to integrate measures of standby mode and off mode energy consumption. (42 U.S.C. 6295(gg)(2)(A)) Standby mode and off mode energy consumption must be incorporated into the overall energy efficiency, energy consumption, or other energy descriptor for each covered product unless the current test procedures already account for and incorporate standby and off mode energy consumption or such integration is technically infeasible. If an integrated test procedure is technically infeasible, DOE must prescribe a separate standby mode and off mode energy use test procedure for the covered product, if technically feasible. (42 U.S.C. 6295(gg)(2)(A)(ii)) Any such amendment must consider the most current versions of the International Electrotechnical Commission (IEC) Standard 62301 [4] and IEC Standard 62087 [5] as applicable. (42 U.S.C. 6295(gg)(2)(A))

With respect to BVMs, EPCA requires the test procedure to be based on the 2004 version of ANSI/ASHRAE Standard 32.1, ''Methods of Testing for Rating Vending Machines for Bottled, Canned or Other Sealed Beverages.'' (42 U.S.C. 6293(b)(15))

EPCA also requires that, at least once every 7 years, DOE evaluate test procedures for each type of covered product, including BVMs, to determine whether amended test procedures would more accurately or fully comply with the requirements for the test procedures to not be unduly burdensome to conduct and be reasonably designed to produce test results that reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle or period of use. (42 U.S.C. 6293(b)(1)(A))

If the Secretary determines, on her own behalf or in response to a petition by any interested person, that a test procedure should be prescribed or amended, the Secretary shall promptly publish in the **Federal Register** proposed test procedures and afford interested persons an opportunity to present oral and written data, views, and arguments with respect to such procedures. The comment period on a proposed rule to amend a test procedure shall be at least 60 days and may not exceed 270 days. In prescribing or amending a test procedure, the Secretary shall take into account such information as the Secretary determines relevant to such procedure, including technological developments relating to energy use or energy efficiency of the type (or class) of covered products involved. (42 U.S.C. 6293(b)(2)) If DOE determines that test procedure revisions are not appropriate, DOE must publish its determination not to amend the test procedures. (42 U.S.C. 6293(b)(1)(A)(ii))

DOE is publishing this final rule in satisfaction of the 7-year review requirement specified in EPCA. (42 U.S.C. 6293(b)(1)(A))

B. Background

DOE's existing test procedures for BVMs appear at 10 CFR part 431, subpart Q, appendices A and B, both titled ''Uniform Test Method for the Measurement of Energy Consumption of Refrigerated Bottled or Canned Beverage Vending Machines'' (appendices A and B, respectively). On or after January 8, 2019, any representations, including compliance certifications, made with respect to the energy use or efficiency of BVMs must be made in accordance with the results of testing pursuant to appendix B.

On July 31, 2015, DOE published a test procedure final rule (July 2015 Final Rule) that referenced updated industry test methods, improved clarity of the procedure, accounted for new equipment features, and established the test procedures at appendices A and B.[6] 80 FR 45758; *see also* 81 FR 1028 (January 8, 2016). The specific amendments in the July 2015 Final Rule included, for both appendices A and B: (1) updating the referenced test method to ANSI/ASHRAE Standard 32.1–2010, ''Methods of Testing for Rating Vending Machines for Sealed Beverages,'' (ANSI/ASHRAE Standard 32.1–2010), (2) incorporating amendments to clarify several ambiguities in ANSI/ASHRAE Standard 32.1–2010, (3) eliminating the requirement to test at the 90-degree Fahrenheit (°F) ambient test condition, (4) clarifying the test procedure for combination vending machines, (5) clarifying the requirements for the loading of BVMs under the DOE test procedure, (6) specifying the characteristics of a standard test package, (7) clarifying the average next-to-vend beverage temperature test condition, (8) specifying placement of thermocouples during the DOE test procedure, (9) establishing provisions for testing at the lowest application product temperature, (10) clarifying the treatment of certain accessories during the DOE test procedure, and (11) clarifying the certification and reporting requirements for covered BVMs. 80 FR 45758, 45760. The July 2015 Final Rule also incorporated amendments in appendix B to account for the impact of low power modes on the measured daily energy consumption (DEC) of BVMs. *Id.*

On May 19, 2021, DOE published in the **Federal Register** an early assessment request for information (May 2021 RFI) seeking comments on the existing DOE test procedure for BVMs. 86 FR 27054. On March 31, 2022, DOE published in the **Federal Register** a notice of proposed rulemaking (NOPR) that proposed to update the test procedure at appendix B (March 2022 NOPR). 87 FR 18936. In the March 2022 NOPR, DOE proposed the following amendments and requested feedback on these proposals:

(1) Incorporate by reference the current industry standard ANSI/ASHRAE Standard 32.1–2017.

(2) Incorporate by reference the industry standard AHAM HRF–1–2008 referenced in ANSI/ASHRAE Standard 32.1–2017.

[4] IEC 62301, *Household electrical appliances—Measurement of standby power* (Edition 2.0, 2011–01).

[5] IEC 62087, *Audio, video, and related equipment—Methods of measurement for power consumption* (Edition 1.0, Parts 1–6: 2015, Part 7: 2018).

[6] As discussed further in this section, the test procedure at appendix B accounts for additional BVM operating modes not accounted for in appendix A and is mandatory for demonstrating compliance with the energy conservation standards in 10 CFR 431.296(b), which are required for BVMs manufactured on or after January 8, 2019.

(3) Maintain the existing DOE test procedure requirements that are not included in ANSI/ASHRAE Standard 32.1–2017.

(4) Provide setup instructions for non-beverage shelves in refrigerated compartments.

(5) Amend the definition of lowest application product temperature (LAPT) to allow for testing BVMs only capable of operating at temperatures below the specified test temperature.

(6) Require coin and bill payment mechanisms to be energized for testing if shipped with the BVM (but not until the compliance date of any amended energy conservation standards).

(7) Specify setup instructions for refrigerant leak mitigation controls consistent with the existing test procedure instructions.

(8) Remove the obsolete test procedure in appendix A.

87 FR 18936.

DOE received comments in response to the March 2022 NOPR from the interested parties listed in Table I.I.

TABLE I.I—LIST OF COMMENTERS WITH WRITTEN SUBMISSIONS OR ORAL COMMENTS IN RESPONSE TO THE MARCH 2022 NOPR

Commenter(s)	Reference in this final rule	Reference No. in the docket	Commenter type
Air-Conditioning, Heating, and Refrigeration Institute	AHRI	* 12	Trade Association.
Appliance Standards Awareness Project; American Council for an Energy-Efficient Economy; Northwest Energy Efficiency Alliance.	Joint Commenters	13	Efficiency Advocates.
National Automatic Merchandising Association	NAMA	14	Trade Association.
Steven Neubauer	Neubauer	9	Individual.

* Document number 12 is the transcript of the webinar. Commenter did not submit written comments.

A parenthetical reference at the end of a comment quotation or paraphrase provides the location of the item in the public record.[7] To the extent that interested parties have provided written comments that are substantively consistent with any oral comments provided during the May 2, 2022, public meeting (hereafter, the NOPR public meeting), DOE cites the written comments throughout this final rule.

II. Synopsis of the Final Rule

In this final rule, DOE amends the test procedure at appendix B as follows:

(1) Incorporates by reference the current industry standard ANSI/ASHRAE Standard 32.1–2022.

(2) Incorporates by reference the industry standard AHAM HRF–1–2016 referenced in ANSI/ASHRAE Standard 32.1–2022.

(3) Provides setup instructions for non-beverage shelves in refrigerated compartments.

(4) Amends the definition of LAPT to allow for testing BVMs only capable of operating at temperatures below the specified test temperature.

(5) Specifies setup instructions for refrigerant leak mitigation controls.

(6) Removes the obsolete test procedure in appendix A.

The adopted amendments are summarized and compared to the test procedure provision prior to the amendment in Table II.I, along with the reason for the adopted change.

TABLE II.I—SUMMARY OF CHANGES IN THE AMENDED TEST PROCEDURE

DOE test procedure prior to amendment	Amended test procedure	Attribution
Incorporates by reference ANSI/ASHRAE Standard 32.1–2010.	Incorporates by reference ANSI/ASHRAE Standard 32.1–2022	Harmonizes with most recent industry test method.
Refers to Appendix C of ANSI/ASHRAE Standard 32.1–2010, which references ANSI/AHAM HRF–1–2004, for measurement of refrigerated volume.	Incorporates by reference AHAM HRF–1–2016 for measurement of refrigerated volume, as referenced in Appendix C of ANSI/ASHRAE Standard 32.1–2022.	Incorporates by reference industry test method required for testing.
Does not specifically address loading of non-beverage merchandise shelves within the refrigerated compartment.	Specifies that non-beverage merchandise shelves within the refrigerated compartment are unloaded for testing.	Improves representativeness and reproducibility.
Defines LAPT only for units that operate at temperatures above the test condition.	Adds a definition for LAPT and test instructions for units that can only operate below the test condition.	Improves representativeness and reproducibility.
Generally requires components necessary for primary functionality to be energized and those not necessary for primary functionality to be de-energized for testing.	Specifies that refrigerant leak mitigation controls must be disconnected, disabled, or otherwise de-energized for the duration of testing, unless integrated into the cabinet or controls such that they cannot be de-energized without disabling the refrigeration or vending functions and must be placed in external accessory standby mode, if available, or their lowest energy-consuming state.	Improves representativeness.
Includes appendix B required for testing current BVMs and appendix A, which is now obsolete.	Removes obsolete appendix A	Improves readability.

DOE has determined that the amendments described in section III of this document and adopted in this document will not alter the measured efficiency of BVMs or require retesting or recertification solely as a result of DOE's adoption of the amendments to the test procedures. Additionally, DOE has determined that the amendments will not increase the cost of testing. Discussion of DOE's actions are addressed in detail in section III of this document.

The effective date for the amended test procedures adopted in this final rule is 30 days after publication of this document in the **Federal Register**. Representations of energy use or energy efficiency must be based on testing in accordance with the amended test procedures beginning 180 days after the publication of this final rule.

[7] The parenthetical reference provides a reference to information located in the docket of DOE's rulemaking to develop test procedures for refrigerated bottled or canned beverage vending machines (Docket No. EERE–2021–BT–TP–0007, which is maintained at *www.regulations.gov*). The references are arranged as follows: (commenter name, comment docket ID number, page of that document).

III. Discussion

A. Scope and Definitions

BVMs are commercial refrigerators (as defined at 10 CFR 431.62) [8] that cool bottled or canned beverages and dispense the bottled or canned beverages on payment. 10 CFR 431.292. The defined equipment classes for BVMs include Class A, Class B, Combination A, and Combination B.

Class A means a BVM that is not a combination vending machine and in which 25 percent or more of the surface area on the front side of the beverage vending machine is transparent.

Class B means a BVM that is not considered to be Class A and is not a combination vending machine.

Combination A means a combination vending machine where 25 percent or more of the surface area on the front side of the beverage vending machine is transparent.[9]

Combination B means a combination vending machine that is not considered to be Combination A.

Combination vending machine means a BVM containing two or more compartments separated by a solid partition, that may or may not share a product delivery chute, in which at least one compartment is designed to be refrigerated, as demonstrated by the presence of temperature controls, and at least one compartment is not. 10 CFR 431.292.

In the March 2022 NOPR, having received no comments on these definitions, and having not identified any BVMs available on the market that would require additional specificity in the existing BVM definitions, DOE tentatively determined that amendments were not required and did not propose any new or amended BVM definitions.[10] 87 FR 18963, 18940.

In response to the March 2022 NOPR, NAMA commented that it does not believe further definition of the terms ''dispense'' or ''solid partition'' is necessary. (NAMA, No. 14, p. 2)

DOE has not identified BVMs available on the market that would require additional specificity in the existing BVM definitions, which is supported by NAMA's comment. Therefore, consistent with the March 2022 NOPR, DOE has determined that amendments are not required and is not amending any of the BVM definitions in this final rule.

B. Updates to Industry Standards

Appendix B incorporates by reference ANSI/ASHRAE Standard 32.1–2010, which was the most current version of the industry standard available at the time of the July 2015 Final Rule. 80 FR 45758, 45762. Appendix B specifically references section 3, ''Definitions''; section 4, ''Instruments''; section 5, ''Vendible Capacity''; section 6, ''Test Conditions''; section 7.1, ''Test Procedures—General Requirements''; and section 7.2, ''Energy Consumption Test'' of ANSI/ASHRAE Standard 32.1–2010. Appendix B includes certain exceptions to these references, and in cases of conflict between appendix B language and the requirements of ANSI/ASHRAE Standard 32.1–2010, the language in appendix B takes precedence. *See* section 1 of appendix B.

At the time of the July 2015 Final Rule analysis, DOE was aware of ongoing industry meetings to consider updates to ASHRAE Standard 32.1. DOE participated in those industry meetings and, to the extent possible, sought to align its test procedure with the expected updates to ASHRAE 32.1. 80 FR 45758, 45762.

On February 2, 2017, ANSI and ASHRAE approved the latest version of Standard 32.1, ANSI/ASHRAE 32.1–2017, ''Methods of Testing for Rating Vending Machines for Sealed Beverages'' (ANSI/ASHRAE Standard 32.1–2017).

Many of the revisions included in ANSI/ASHRAE Standard 32.1–2017 harmonize the industry standard with the existing DOE test procedure. However, some substantive differences between DOE's test procedure at appendix B and ANSI/ASHRAE Standard 32.1–2017 remain, notably the following:

(1) Section 2.2.4 of appendix B contains provisions for testing accessory low power mode, and section 2.3.2 of appendix B accounts for refrigeration low power mode, whereas ANSI/ASHRAE Standard 32.1–2017 contains no such provisions (and specifically prohibits operation in low power mode during testing, per section 7.2.2.6.2). *See* section III.C.6 of this document for additional discussion of low power modes.

(2) Section 2.1.3 of appendix B provides instructions for testing BVMs that are not capable of maintaining an integrated average temperature of 36 °F ±1 °F during the 24-hour test period, whereas ANSI/ASHRAE Standard 32.1–2017 contains no such provisions. *See* section II.C.4 of this document for additional discussion of lowest application product temperatures.

(3) Section 2.2.1.4 of appendix B specifies a ''standard product'' consisting of standard 12-ounce aluminum beverage cans filled with a liquid with a density of 1.0 grams per milliliter (g/mL) ±0.1 g/mL at 36 °F, whereas ANSI/ASHRAE Standard 32.1–2017 specifies using a 33 percent propylene glycol and 67 percent water solution. *See* section II.C.3 of this document for additional discussion of standard product characteristics.

(4) Section 2.2.5.1 of appendix B provides instructions for payment mechanisms that cannot be disconnected during testing (if the payment mechanism is not removed, appendix B requires it to be in place but de-energized, or set to the lowest energy-consuming state if it cannot be de-energized) and specifies a default payment mechanism energy consumption of 0.20 kilowatt-hours per day (kWh/day), whereas ANSI/ASHRAE Standard 32.1–2017 contains no such provisions. *See* section II.C.5 of this document for additional discussion of payment mechanisms.

(5) Section 2.2.3 of appendix B requires energy management systems to be disabled and energy-saving features that cannot be disabled to be set to their most energy-consuming settings, whereas ANSI/ASHRAE Standard 32.1–2017 also requires that energy management systems be disabled but does not address other energy-saving features that cannot be disabled.

(6) Sections 2.2.5.2 through 2.2.5.10 of appendix B provide additional setup instructions regarding certain equipment accessories (*i.e.,* internal lighting; external customer display signs, lights, and digital screens; anti-sweat or other electric resistance heaters; condensate pan heaters and pumps; illuminated temperature displays; condensate filters; security covers; general purpose outlets; and crankcase heaters and other electric resistance heaters for cold weather), whereas ANSI/ASHRAE Standard 32.1–2017 provides instructions for only a subset of these accessories (*i.e.,* video screens and lighting).

(7) Section 2.2.2 of appendix B prohibits routing thermocouple wires

[8] As defined in 10 CFR 431.62, ''commercial refrigerator'' means a unit of commercial refrigeration equipment in which all refrigerated compartments in the unit are capable of operating at or above 32 °F (±2 °F).

[9] As provided in 10 CFR 429.134(j)(2), the determination of percent transparent surface does not include the surface area surrounding any compartments that are not designed to be refrigerated (as demonstrated by the presence of temperature controls), whether or not it is transparent.

[10] DOE notes that the regulatory text in the March 2022 NOPR inadvertently included a new definition for *V,* refrigerated volume, at 10 CFR 431.292. DOE did not discuss this term in the preamble to the March 2022 NOPR and stated explicitly that DOE was not proposing any new or amended BVM definitions. 87 FR 18936, 18939.

and other measuring equipment through the dispensing door, whereas ANSI/ASHRAE Standard 32.1–2017 contains no such prohibition (only that they be installed in a manner that does not affect energy performance).

(8) Section 2.3.3 of appendix B provides rounding instructions on energy consumption results, whereas ANSI/ASHRAE Standard 32.1–2017 contains no such rounding instructions.

(9) ANSI/ASHRAE Standard 32.1–2017 provides an additional recovery test (to determine the product temperature recovery time of the BVM when loaded with product at a certain temperature) and a vend test (to determine how much cold product a BVM will deliver when bottles, cans, or other sealed packages are vended at a rate of two per minute, 3 hours after a half-full machine is refilled with product at a specified beverage temperature), whereas appendix B contains no such tests. These tests assess product temperature recovery and vending performance but do not factor into the energy use measurement in ANSI/ASHRAE Standard 32.1–2017.

In addition to these differences with the DOE test procedure, ANSI/ASHRAE Standard 32.1–2017 also lists key changes from the 2010 version, summarized by the following:

- Updates definitions to specify the application to BVMs;
- Removes zone-cooled/fully cooled distinction;
- Updates AHAM HRF–1 references to a more recent version of the standard (2008);
- Removes the 90 °F test condition for ambient temperature and maintains a single ambient temperature (75 °F);
- Clarifies test setup requirements for temperature sensor locations and test package/wire setup;
- Incorporates requirements for the controls systems; and
- Clarifies the integrated average temperature (IAT) calculation.

In the March 2022 NOPR, DOE proposed to incorporate by reference the most recent updated industry standard, ANSI/ASHRAE Standard 32.1–2017, while maintaining the current DOE test procedure provisions not included in ANSI/ASHRAE Standard 32.1–2017 regarding energy management systems, accessory setup instructions, wire routing, and rounding. 87 FR 18936, 18941. This proposed approach was consistent with the recommendations from interested parties, and DOE tentatively determined that the proposal would not impact current BVM ratings or test costs because the proposed test procedure was substantively the same as the current DOE test procedure. *Id.*

For consistency with the proposed incorporation by reference of ANSI/ASHRAE Standard 32.1–2017, DOE also proposed in the March 2022 NOPR to incorporate by reference AHAM HRF–1–2008, including the correction sheet issued November 17, 2009, to ensure that BVM testing is conducted to the appropriate test standard. 87 FR 18936, 18941. In the March 2022 NOPR, DOE tentatively determined that the updates made to AHAM HRF–1 between the 2004 and 2008 versions provided clarifications and instructions for measuring components that are specific to consumer refrigeration products (*e.g.,* consideration of through-the-door ice and water dispensers) and that current refrigerated volume measurements and ratings for BVMs would be unchanged under the proposed updated industry standard reference. *Id.*

In the March 2022 NOPR, DOE requested comment on its proposal to incorporate by reference the most current industry test standard, ANSI/ASHRAE Standard 32.1–2017, including the updated reference to AHAM HRF–1–2008 for measuring refrigerated volume. 87 FR 18936, 18941. DOE also requested comment on whether the proposed amendments would affect BVM ratings as measured under the existing test procedure or whether they would impact test burden. *Id.*

NAMA expressed agreement with DOE that updating the references to AHAM HRF–1–2008 and ANSI/ASHRAE 32.1–2017 is more appropriate. (NAMA, No. 14, p. 2) NAMA also stated that referencing AHAM HRF–1–2008 would help clarify some of the dimensional volume measurements. (NAMA, No. 14, p. 2–3)

Since publication of the March 2022 NOPR, the first public review draft of Board of Standards Review/ASHRAE Standard 32.1–2017R (BSR/ASHRAE 32.1–2017R) was published on April 22, 2022.[11] The only change in comparison to the 2017 version of the standard is an update of the AHAM HRF–1 reference to the 2016 version. DOE submitted comments to suggest harmonization with the March 2022 NOPR test procedure and inclusion of the most current version of referenced standards, as a more recent version of AHAM HRF–1 (2019) has been published.

On December 30, 2022, ANSI/ASHRAE 32.1–2022 was published. DOE reviewed ANSI/ASHRAE 32.1–2022 and determined that it is substantively the same to BSR/ASHRAE 32.1–2017R. DOE has reviewed the sections in AHAM HRF–1–2016 referenced by ANSI/ASHRAE 32.1–2022 and determined that the updated reference in ANSI/ASHRAE 32.1–2022 to AHAM HRF–1–2016 provides clarifications and does not substantively change the standard. Based on this determination, incorporating by reference ANSI/ASHRAE 32.1–2022 and AHAM HRF–1–2016 would be substantively consistent with DOE's proposal in the March 2022 NOPR and, therefore, DOE has determined to incorporate by reference ANSI/ASHRAE 32.1–2022 and AHAM HRF–1–2016, while maintaining the current DOE test procedure provisions not included in ANSI/ASHRAE Standard 32.1–2022 regarding energy management systems, accessory setup instructions, wire routing, and rounding.

C. Test Procedure

The following sections discuss the proposals from the March 2022 NOPR, any comments received in response to the proposals, and any corresponding finalized amendments to the DOE test procedure.

1. Ambient Test Conditions

Section 2.1.2 of appendix B requires testing and rating BVM performance in a 75 °F ambient temperature with 45 percent relative humidity. Prior to the July 2015 Final Rule, the DOE test procedure incorporated by reference ANSI/ASHRAE Standard 32.1–2004, which included two ambient test conditions: 75 °F with 45 percent relative humidity and 90 °F with 65 percent relative humidity. However, compliance with DOE's energy conservation standard was determined based on performance at only the 75 °F with a 45 percent relative humidity test condition. In the July 2015 Final Rule, DOE determined that the 75 °F with a 45 percent relative humidity test condition provides a reasonable and comparable representation of energy performance for all BVMs and removed the 90 °F with a 65 percent relative humidity condition. 80 FR 45758, 45765.

During the rulemaking leading to the July 2015 Final Rule, DOE estimated that 18 percent of Class B and Combination B BVMs were installed outdoors. 80 FR 45758, 45765. DOE determined that, although these BVMs would experience different ambient conditions than in the test procedure, it would not be feasible to test at all the conditions BVMs may experience in the field. *Id.* In ANSI/ASHRAE Standard 32.1–2017, the 90 °F with a 65 percent relative humidity test condition for the energy consumption test was removed,

[11] Information on BSR/ASHRAE Standard 32.1–2017R can be found at *www.ashrae.org/file%20library/technical%20resources/standards%20and%20guidelines/standards%20actions/saapr222022.pdf.*

and the industry test standard designated the 75 °F with a 45 percent relative humidity test condition as the singular test condition.

In the March 2022 NOPR, DOE tentatively determined that while BVMs may be installed and operated in a variety of locations and ambient conditions, the existing single test condition provides a representative test condition for BVMs, consistent with the July 2015 Final Rule determination. Accordingly, DOE did not propose any changes to the current requirement to test under the single ambient test condition (75 °F and 45 percent relative humidity), consistent with the test condition specified in ASHRAE Standard 32.1–2022. 87 FR 18936, 18941.

In response to the March 2022 NOPR, NAMA commented that removal of the requirement to test at both 75 degrees and 90 degrees was appropriate and would assist manufacturers in reducing testing costs and would not change the overall energy measurement. (NAMA, No. 14, p. 2) NAMA also expressed agreement with DOE that testing at 75 degrees and 45 percent relative humidity is realistic and provides a reasonable and comparable representation of energy performance. (NAMA, No. 14, p. 3) NAMA also commented that it could not present information about the percentage of machines installed indoors, outdoors, in insulated environments, or in space-conditioned indoor environments. (NAMA, No. 14, p. 3) NAMA explained that BVM manufacturers do not determine placement of machines; rather, the customers of the BVM manufacturer and individual bottlers or store locations make that determination, and such information is not shared with the BVM manufacturer. *Id.*

Neubauer commented that many BVMs are placed outdoors in uncontrolled environments, such that the previous initial test at 90 °F ambient temperature was reasonable and sound. (Neubauer, No. 9, p. 1) Neubauer added that many customers prefer a colder drink, especially in hot environments. *Id.* Neubauer also commented that manufacturers make a wide variety of BVM models and that eliminating the 90 °F condition potentially eliminated a competitive advantage of manufacturers who design vending machines specifically for high ambient conditions. Neubauer added that requiring the 90 °F ambient temperature test would encourage BVM manufacturers to continue to design these machines efficiently for their intended use case. *Id.*

While acknowledging that a 90 °F ambient temperature may represent certain BVM installations, DOE recognizes that BVMs may be installed and operated in a variety of locations and ambient conditions (including temperatures significantly lower than the aforementioned test conditions). In consideration of these factors, DOE reiterates and maintains its previous determination that the existing single test condition provides for a representative measurement of energy use for BVMs and is not unduly burdensome to conduct. Accordingly, in this final rule, DOE is not making any changes to the current requirement to test under the single ambient test condition (75 °F and 45 percent relative humidity), consistent with the test condition specified in ASHRAE Standard 32.1–2022.

2. Test Procedure for Combination BVMs

As described in section III.A of this document, DOE defines ''combination BVM'' as a BVM containing two or more compartments separated by a solid partition, that may or may not share a product delivery chute, in which at least one compartment is designed to be refrigerated, as demonstrated by the presence of temperature controls, and at least one compartment is not. 10 CFR 431.292. The thermal mass of items loaded into the non-refrigerated compartments (or lack of thermal mass for unloaded compartments) may affect the measured DEC of combination BVMs. Section 2.2.1.3 of appendix B specifies that the non-refrigerated compartments of combination BVMs must not be loaded with any standard products or other vendible merchandise during testing. Sections 7.2.2.2 and 7.2.2.7 of ANSI/ASHRAE Standard 32.1–2022 require combination BVMs not to be loaded with any standard products, test packages, or other vendible merchandise in the non-refrigerated compartments.

In the March 2022 NOPR, DOE requested information on typical loads for non-refrigerated compartments in combination BVMs and, if DOE were to require such loads for testing, the potential impacts on combination BVM energy consumption and test burden. 87 FR 18936, 18942.

In response to the March 2022 NOPR, NAMA commented that many machines are configured for both ''snacks'' and ''beverages'' and agreed that testing or designing a ''standard'' thermal mass for testing non-beverage items is difficult and would not provide better information than the test procedure DOE proposed. (NAMA, No. 14, p. 3) NAMA also commented that estimating the thermal characteristics by using no-filled space for non-beverage materials is best, and stated that the method proposed by DOE is a representative, reasonable, and reproducible approach. *Id.*

NAMA also commented that BVM manufacturers do not dictate what non-beverage materials are placed into the machines; rather, placement of non-beverage materials is dictated by the end user, and therefore BVM manufacturers do not have information on this and would not be able to provide this to DOE. (NAMA, No. 14, p. 3)

As stated in the March 2022 NOPR, typical loads for non-refrigerated compartments can range from small items with density similar to beverages (*e.g.,* chocolate bars) to larger low-density items (*e.g.,* bags of chips). 87 FR 18936, 18942. Given the wide range of products stored in non-refrigerated compartments and BVM manufacturers' lack of information regarding end users' products, as stated in NAMA's comment, DOE has not identified a typical representative load for these compartments. Additionally, DOE acknowledges that loading non-refrigerated compartments in a consistent, repeatable manner may be difficult due to the range of shelf configurations in those compartments. DOE did not identify a standard package that could be consistently loaded into non-refrigerated shelves for testing and has determined that requiring such a load would introduce additional test burden compared to the existing unloaded approach. In consideration of these factors, DOE has determined that the current test procedure provides a representative, repeatable, and reproducible approach for testing combination BVMs while minimizing test burden. Accordingly, DOE is not requiring a load in non-refrigerated compartments, consistent with the proposed approach in the March 2022 NOPR.

3. Characteristics of the Standard Product

Section 2.2.1.4 of appendix B specifies the standard products to be used for testing, which include the following: 12-ounce aluminum beverage cans filled with a liquid with a density of 1.0 grams per milliliter (g/mL) ±0.1 g/mL at 36 °F; or, for product storage racks that are not capable of vending 12-ounce cans but are capable of vending 20-ounce bottles, 20-ounce plastic bottles filled with a liquid with a density of 1.0 g/mL ±0.1 g/mL at 36 °F; or, for product storage racks that are not capable of vending 12-ounce cans or 20-ounce

bottles, the packaging and contents specified by the manufacturer in product literature (*i.e.,* the specific merchandise the refrigerated bottled or canned beverage vending machine is designed to vend).

In the March 2022 NOPR, DOE discussed its previous considerations of other standard products that could potentially be defined, including slimline cans, milk cartons, aseptic packs, pouches, and energy drinks. Having not received comment on this topic in response to the May 2021 RFI, DOE did not propose any changes in the March 2022 NOPR to the current test procedure standard packages of 12-ounce cans, 20-ounce bottles, or the packaging and contents specified by the manufacturer in product literature, depending on the BVM vending capability. 87 FR 18936, 18942. DOE also did not receive any comment in response to the March 2022 NOPR on this topic.

Additionally, certain BVMs are marketed to vend both beverages and food but do not contain a solid partition that separates the shelves or compartments intended for refrigerated bottled or canned beverages from those intended for other merchandise. Section 2.2.1.4 of appendix B specifies that if the non-beverage shelves of these BVMs are not capable of vending 12-ounce cans or 20-ounce bottles, the standard product for testing is the packaging and contents specified by the manufacturer in product literature.

In the March 2022 NOPR, DOE discussed that for non-beverage shelves, manufacturers do not always specify the packaging and contents of the merchandise to be loaded. 87 FR 18936, 18942. Additionally, DOE discussed that measuring temperature at the center of mass of non-liquid merchandise packaging would provide unique challenges compared to liquid containers (*e.g.,* measuring the center of mass of a bag of chips). *Id.*

In the March 2022 NOPR, DOE tentatively determined that it could not identify a representative non-beverage test load because of the wide range of merchandise that could be loaded in non-beverage shelves. Additionally, DOE stated that it expects that measuring the temperatures of non-beverage standard packages would be difficult to do repeatably and reproducibly (*i.e.,* measuring the temperature in food packaging rather than in a liquid) and would increase test burden. *Id.* at 87 FR 18942–18943. To ensure that BVMs with non-beverage merchandising shelves are tested consistently and in a representative manner while limiting test burden, DOE proposed to specify in a new section 2.2.1.1 of appendix B that shelves within the refrigerated compartment that are only for non-beverage merchandise must not be loaded for testing. DOE stated that it expects that manufacturers may already use this approach for testing shelves that cannot accommodate any beverage containers (*i.e.,* it is unclear how manufacturers currently test such BVMs, and DOE has not received any petitions for waiver regarding this issue). DOE also stated that it does not expect that this proposal would result in any cost impacts for BVM manufacturers. *Id.*

DOE requested comment on the proposal to specify that non-beverage merchandise shelves not be loaded for testing BVMs. *Id.* DOE also sought information on how such models are currently tested and on whether this proposal would impact current BVM ratings or test burden. *Id.*

NAMA stated that the packaging and contents of merchandise to be loaded in combination machines is the decision of the end user. (NAMA, No. 14, p. 3) NAMA agreed with DOE's assertion that it would be very difficult to design a uniform non-beverage food material for testing and supported DOE's proposal that the non-beverage areas be left empty for testing. *Id.*

In this final rule, DOE has determined that it cannot identify a representative non-beverage test load because of the wide range of merchandise that could be loaded in non-beverage shelves. Additionally, DOE has determined that, at this time, measuring the temperatures of non-beverage standard packages (*i.e.,* measuring the temperature in food packaging rather than in a liquid) would be difficult to do repeatably and reproducibly and would increase test burden. To ensure that BVMs with non-beverage merchandising shelves are tested consistently and in a representative manner while limiting test burden, DOE is specifying in a new section 2.2.1.1 of appendix B that shelves within the refrigerated compartment that are reserved only for non-beverage merchandise must not be loaded for testing, consistent with the proposal in the March 2022 NOPR. As discussed, DOE expects that manufacturers may already use this approach for testing shelves that cannot accommodate any beverage containers and that this amendment will not result in any cost impacts for BVM manufacturers. For shelves within the refrigerated compartment that are for beverage merchandise, DOE is not making any changes in this final rule to the current standard package requirements.

Section 2.2.1.4 of appendix B requires that the standard product 12-ounce cans or 20-ounce bottles be filled with liquid with a density of 1.0 g/mL ±0.1 g/mL at 36 °F, whereas ANSI/ASHRAE Standard 32.1–2022 requires the beverage temperature test packages to be filled with a 33 percent propylene glycol and 67 percent water solution. ANSI/ASHRAE Standard 32.1–2022 does not specify whether these glycol and water percentages are based on weight or volume.

In the March 2022 NOPR, DOE noted the use of a propylene glycol solution in other test procedures, such as for testing commercial refrigeration equipment.[12] 87 FR 18936, 18943. Commercial freezers are by definition capable of operating below 32 °F (*see* 10 CFR 431.62) and are tested at a 0 °F integrated average temperature. *See* section 2.1 of 10 CFR part 431, subpart C, appendix B. While water would freeze at operating temperatures below 32 °F, the propylene glycol solution has a reduced freezing point and remains a liquid at the test temperatures. DOE discussed in the March 2022 NOPR that the potential for a phase change in the test solution introduces test variability, as solid and liquid water have different heat transfer properties, and if the phase change occurs during a test, the measured temperature during the phase change may not represent actual storage temperatures. *Id.*

In the March 2022 NOPR, DOE further stated that for BVMs, the target test condition of 36 °F is above the freezing point of water and other liquids likely to be used for testing BVMs. *Id.* As a result, DOE tentatively determined that specifying an alternative propylene glycol solution for testing BVMs would not be likely to reduce test variability, as is the case when testing other types of equipment at temperatures below the freezing point of water. *Id.* Additionally, DOE tentatively determined that requiring the use of a propylene glycol solution would increase test burden compared to the existing test approach, which allows more flexibility and does not require the preparation of a test solution. *Id.* For these reasons, DOE tentatively determined to maintain the existing test procedure provisions regarding the specifications of the standard product. *Id.*

In response to the March 2022 NOPR, NAMA commented that other ASHRAE

[12] *See* 10 CFR part 431, subpart C, appendix B, which incorporates by reference ANSI/ASHRAE Standard 72–2005 (ANSI/ASHRAE 72–2005), ''Method of Testing Commercial Refrigerators and Freezers.'' Section 6.2.1 of ANSI/ASHRAE 72–2005 specifies the use of propylene glycol solution in test simulators.

standards (*e.g.,* ASHRAE 72) use the percentage of propylene glycol and water by volume, not by weight, and that for consistency, the BVM test procedure should also use measurement by volume. (NAMA, No. 14, p. 4) NAMA also commented that specifying an alternative propylene glycol solution for testing BVMs is not likely to reduce test variability, as might be the case when testing materials at or below freezing, and stated that further clarification is not necessary. *Id.*

Based on consideration of these comments in response to the March 2022 NOPR, DOE has determined that specifying an alternative propylene glycol solution for testing BVMs is not likely to reduce test variability, as is the case when testing other types of equipment at temperatures at or below the freezing point of water, and would increase test burden compared to the existing test approach. Regarding NAMA's concern that the percentage of propylene glycol and water should be measured by volume, not weight, the test procedure as finalized in this document does not require the use of a propylene glycol mixture. In summary, for the reasons discussed here and in the March 2022 NOPR, DOE has determined to maintain the existing test procedure provisions regarding the specifications of the standard product as proposed in the March 2022 NOPR.

4. Lowest Application Product Temperature

Section 2.1.1 of appendix B requires that the IAT of the BVM be 36 °F ±1 °F over the test period. *See* table B.1 of appendix B. For BVMs only capable of operating at temperatures higher than the specified IAT of 36 °F ±1 °F, section 2.1.3 of appendix B requires testing at the BVM's LAPT.

DOE's compliance certification database (CCD) [13] lists all BVM models certified to DOE, including the LAPT used for rating each model, if applicable. Of the 148 individual models included in the CCD at the time of this analysis, 6 individual models (representing 2 basic models) from one manufacturer are rated at LAPTs ranging from 37.9 °F to 38.5 °F. Additional models had previously been certified to DOE (but are not included in the current CCD) as being rated at an LAPT below the 36 °F ±1 °F IAT range required in the DOE test procedure. For example, models from one manufacturer were previously rated at an IAT of 32 °F, indicating that those BVMs could not operate at 36 °F ±1 °F.

In the March 2022 NOPR, DOE acknowledged that the current LAPT provisions result in some BVMs being tested at a higher temperature than those capable of maintaining the required test IAT. 87 FR 18936, 18943. However, for BVMs not capable of operating with temperatures of 36 °F ±1 °F, the LAPT test provisions are representative of the actual operation of those models. *Id.* Accordingly, the LAPT test provisions measure the energy use of those BVMs during a representative average use cycle or period of use as required by EPCA. (42 U.S.C. 6293(b)(3)) Additionally, any models tested and rated under the LAPT provisions are identified in DOE's CCD, along with the actual IAT maintained during testing for those models, so that such information is available to customers making purchasing decisions. *Id.*

Therefore, in the March 2022 NOPR, DOE tentatively determined to maintain the current LAPT provisions and proposed adding an additional provision for testing BVMs that are only capable of maintaining temperatures below the 36 °F ±1 °F range. 87 FR 18936, 18943. For these units, DOE proposed to test at the highest thermostat setting. *Id.* This would allow for testing the BVM under the setting closest to the required IAT. *Id.* DOE proposed to amend the definition of ''lowest application product temperature'' in section 1.2 of appendix B as follows:

(a) For units that operate only at temperatures *above* the integrated average temperature specified in Table 1 of ANSI/ASHRAE Standard 32.1–2022: The lowest integrated average temperature a given basic model is capable of maintaining so as to comply with the temperature stabilization requirements specified in section 7.2.2.2 of ANSI/ASHRAE Standard 32.1–2022.

(b) For units that operate only at temperatures *below* the integrated average temperature specified in Table 1 of ANSI/ASHRAE Standard 32.1–2022: The highest integrated average temperature a given basic model is capable of maintaining so as to comply with the temperature stabilization requirements specified in section 7.2.2.2 of ANSI/ASHRAE Standard 32.1–2022. *Id.*

DOE requested comment on its initial determination to maintain the existing LAPT approach for units that operate only at temperatures above 36 °F ±1 °F. 87 FR 18936, 18944. DOE also requested comment on its proposal to require testing at the highest IAT a given basic model is capable of maintaining for units that are only capable of operating at temperatures below 36 °F ±1 °F. *Id.*

In response to the March 2022 NOPR, NAMA agreed with DOE's proposal to maintain the current LAPT provisions and to require testing at the highest thermostat setting for BVMs that are only capable of maintaining temperatures below the 36 °F range. (NAMA, No. 14, p. 4)

The Joint Commenters supported DOE's proposed provisions for testing units only capable of operating below 36 °F ±1 °F at their highest thermostat setting, as well as DOE's proposal to update the definition of LAPT to include this situation. Regarding DOE's proposal to maintain the current test provisions for units only capable of operating at temperatures above 36 °F ±1 °F, the Joint Commenters expressed concern that units tested at operating temperatures above the specified test temperature, thus consuming less energy (*i.e.,* by cooling to a higher temperature), can more easily comply with the energy conservation standards. The Joint Commenters encouraged DOE to consider defining a separate category for BVMs only capable of operating at temperatures above 36 °F ±1 °F and to establish a separate test temperature for such units. (Joint Commenters, No. 13, p. 1)

Regarding the concerns expressed by the Joint Commenters about units that operate only at temperatures above 36 °F ±1 °F, as discussed previously, the LAPT test provisions produce test results that are representative of the actual operation of such models. Accordingly, the LAPT test provisions measure the energy use of those BVMs during a representative average use cycle or period of use as required by EPCA. (42 U.S.C. 6293(b)(3)) DOE considers equipment class definitions and the applicability of any energy conservation standards to each defined class as part of separate energy conservation standards rulemakings.[14] For the reasons discussed previously in this final rule and in the March 2022 NOPR, DOE is maintaining the existing LAPT approach for units that operate only at temperatures above 36 °F ±1 °F and amending the definition of LAPT to more explicitly address such units, as proposed in the March 2022 NOPR.

For BVMs that are only capable of maintaining temperatures below 36 °F ±1 °F, DOE is adopting the provisions proposed in the March 2022 NOPR to

[13] Available at *www.regulations.doe.gov/certification-data.*

[14] DOE is currently conducting an energy conservation standards rulemaking for BVMs. *See* docket number EERE–2020–BT–STD–0014 at *www.regulations.gov.*

require testing such units at the highest IAT the unit is capable of maintaining (*i.e.,* the highest thermostat setting) and to amend the definition of LAPT to more explicitly address such units.

5. Payment Mechanisms

Section 2.2.5.1 of appendix B requires testing BVMs with (1) no payment mechanism in place, (2) the payment mechanism in place but de-energized, or (3) the payment mechanism in place but set to the lowest energy consuming state if it cannot be de-energized. A default payment mechanism energy consumption value of 0.20 kilowatt-hours per day (kWh/day) is added to the measured energy consumption, according to section 2.3 of appendix B. In section 7.1.2.2. of ANSI/ASHRAE Standard 32.1–2022, payment mechanisms are required to be disconnected during testing.

In the July 2015 Final Rule, DOE determined that because payment mechanisms are variable and not always included in the machine at the time of sale, it is difficult to unambiguously specify a ''representative'' payment mechanism or device combination. 80 FR 45758, 45776. DOE concluded that conducting physical testing of BVMs with no payment mechanisms installed, as opposed to testing with payment mechanisms in place, is the most straightforward, repeatable, and unambiguous approach. *Id.* Because payment mechanisms are integral to the vending function of BVMs, DOE established the 0.20 kWh/day value based on a weighted average energy consumption of 25 different payment mechanisms available at the time of the July 2015 Final Rule, which included 11 coin mechanisms, 11 bill validators, and 3 credit card readers. 80 FR 45758, 45777.

In the March 2022 NOPR, based on a survey of units currently available on the market, DOE observed that coin and bill payment mechanisms are typically included with BVMs as sold or shipped, but that credit card readers are typically sold as an optional feature and are sold separately from BVMs. 87 FR 18936, 18944. DOE also discussed in the March 2022 NOPR a lack of data regarding the relative use of credit card readers as compared to coin and bill payment mechanisms. *Id.*

As presented in the March 2022 NOPR, DOE conducted a review of currently available payment mechanisms to determine whether the previously derived 0.20 kWh/day default payment mechanism energy consumption is appropriate. 87 FR 18936, 18944. DOE reviewed manufacturer specifications for 3 coin changers, more than 30 bill validators, and 2 credit card readers. *Id.* A summary of the calculated daily energy consumptions for each payment mechanism type based on the manufacturer specifications is presented in Table III.I.

TABLE III.I—PAYMENT MECHANISM ENERGY CONSUMPTION SUMMARY AS PRESENTED IN THE MARCH 2022 NOPR

Payment mechanism type	Average calculated daily energy consumption (kWh/day)	Range of calculated daily energy consumption (kWh/day)
Coin Changer	0.07	0.01 to 0.12
Bill Validator	0.11	0.04 to 0.17
Credit Card Reader	0.10	0.07 to 0.12

In the March 2022 NOPR, DOE tentatively determined that requiring a payment mechanism included with a BVM as shipped (*i.e.,* the coin and bill payment mechanism) to be energized during testing would provide a more representative measure of energy use compared to the current default value specified in the test procedure. 87 FR 18936, 18944. DOE proposed to amend the test procedure to require that if a BVM is shipped with coin and/or bill payment mechanisms in place, the payment mechanisms shall be energized during testing, but not until the compliance date of any amended energy conservation standards. *Id.* Because credit card readers are more likely to be optional features or sold separately, DOE proposed to maintain the existing approach for testing in which (1) credit card payment mechanisms would be disconnected or de-energized if possible or (2) credit card payment mechanisms would remain in place but set to the lowest energy consuming state if they cannot be de-energized. 87 FR 18936, 18944–18945. To account for the possibility that a BVM may be shipped with no payment mechanism in place, DOE proposed to maintain the 0.20 kWh/day energy use adder to represent the energy consumption of a payment mechanism during representative use. 87 FR 18936, 18945.

DOE requested comment on its proposal to require testing with coin and bill payment mechanisms energized if they are included in the BVM as shipped. 87 FR 18936, 18945. DOE also requested comment on whether this approach would result in any additional test burden. *Id.* DOE additionally requested comment on its proposal to require that any credit card payment mechanisms for testing be disconnected or de-energized, if possible, or in place but set to the lowest energy consuming state if they cannot be de-energized. *Id.* DOE further requested information on the continued use of the 0.20 kWh/day energy use adder for BVMs shipped with no coin or bill payment mechanisms in place. *Id.* DOE also requested comment on the proposal not to require the use of these amendments until the compliance date of any future amended energy conservation standards for BVMs. *Id.*

The Joint Commenters supported DOE's proposed provisions relating to bill and coin payment mechanisms but expressed concern that the energy consumed by credit card readers would not be captured through direct testing nor accurately captured through the application of the 0.2 kWh power adder. (Joint Commenters, No. 13, p. 1–2) The Joint Commenters encouraged DOE to extend its proposal to all types of payment mechanisms shipped with BVMs and require credit card readers to be energized during testing if they are sold with the models. *Id.*

NAMA commented that its survey showed the percentage of machines shipped with payment systems ranged from 5 to 98 percent by manufacturer. (NAMA, No. 14, p. 4) NAMA added that some manufacturers ship 80 to 98 percent of units with a payment system, while other manufacturers ship far fewer units with payment systems, instead allowing the customer to add a payment system later. *Id.* NAMA further commented that there can be multiple coin, bill, and credit card readers for each model of each machine. (NAMA, No. 14, p. 5) NAMA added that for machines shipped with a payment system, DOE's proposal would require creating a matrix of multiple machine types to be tested with multiple

payment types by multiple manufacturers of the payment systems. *Id.* NAMA also commented that new technologies are regularly entering the market, and that many BVMs must incorporate cell phone payment, credit card chip pass-by systems, and telemetry systems. *Id.* NAMA added that BVM manufacturers often receive a new payment system from a customer shortly before production and asserted that DOE's proposal would require production of BVMs to be put on hold until energy testing of such new payment systems is completed. *Id.*

NAMA disagreed with DOE's estimate of the cost of testing for different payment mechanisms. (NAMA, No. 14, p. 9) NAMA stated that the cost is much higher than $8,300 per basic model. *Id.* In addition, NAMA noted that each time a manufacturer seeks to make a change that in any way affects the energy use of the machine, it would necessitate the entire matrix of tests with every possible combination of payment mechanisms. *Id.* Lastly, NAMA added that substantive changes to the major energy-using components of a BVM (*e.g.,* new compressor, new condenser, new evaporator) necessitate a complete review by the safety certification organization; that the cost of such a retest is far more than DOE's estimate and could take 3 months or more; and that DOE did not include safety recertification in its estimated cost of testing. *Id.*

NAMA commented that testing multiple combinations would be onerous, and stated that while NAMA would agree using an automatic 0.20 kWh/day factor may not be the most accurate in all cases, the current use of this factor is better than requiring hundreds of hours of laboratory testing for the sake of a fraction of a kWh/day difference. (NAMA, No. 14, p. 5) In response to DOE's statement that manufacturers would not be required to retest or recertify BVMs because of the proposed payment mechanism approach until the new standard is effective, NAMA asserted that manufacturers would have to engage in considerable testing before and after the new test procedure becomes required. (NAMA, No. 14, p. 6) NAMA commented that all of the additional testing described in their comment seems unnecessary with regard to a difference in energy use of 0.003 kWh/day. *Id.*

DOE has further considered its approach regarding payment mechanisms based on these comments and additional analysis and review of the data and information presented in the March 2022 NOPR. The available information demonstrates that a wide (and growing) variety of payment systems is currently available on the market; the most common scenario is for the payment mechanism to be specified (and in some cases, provided) by the customer; and the customer may decide whether to have the payment mechanism installed by the BVM manufacturer at the time of sale. DOE has further analyzed the energy use data presented in the March 2022 NOPR and has concluded that the difference in energy use between types of payment mechanisms (*e.g.,* generally less than 0.1 kWh/day) is a small fraction of the measured daily energy consumption of the BVM as currently tested (*e.g.,* ranging from 2.2 to 4.9 kWh/day for models currently listed in DOE's CCD). DOE also notes that the combined average calculated daily energy use of a coin changer and bill validator as presented in Table III.I (*i.e.,* 0.18 kWh/day)—which represents a typical combination of payment mechanisms available on BVMs—closely matches the default adder (0.20 kWh/day). DOE has also further considered the additional test burden that could result from requiring a payment mechanism that is included with the BVM as shipped to be energized during testing, as suggested by commenters.

Based on these considerations, DOE has determined that requiring a payment mechanism to be energized during testing if it is included with a BVM as shipped may not necessarily provide a more representative measure of energy use compared to the current test method, and that any improvement in representativeness resulting from such a requirement would be outweighed by the additional test burden that may be required, as described in stakeholder comments. Therefore, in this final rule, DOE is not amending the test provisions with regard to payment mechanisms as it proposed to do in the March 2022 NOPR. Instead, DOE has determined to maintain the current test provisions, which specify a default 0.2 kWh/day adder.

6. Low Power Modes

Appendix B incorporates definitions and test requirements for two types of low power modes: [15] accessory low power mode and refrigeration low power mode. Section 7.2.2.6.2 of ANSI/ASHRAE Standard 32.1–2022 requires that low power modes not be allowed to operate during testing.

In the July 2015 Final Rule, DOE acknowledged that the two types of low power modes incorporated into the test procedure may not address all forms of low power modes available in the BVM market. 80 FR 45758, 45786. DOE identified ''learning-based'' energy management controls that use historical sales and traffic data to predict times of high and low traffic; however, DOE did not propose a test procedure for such controls, determining that it would be difficult to develop a repeatable test procedure to evaluate the energy savings of such controls during a 24-hour test in a laboratory. *Id.*

In the March 2022 NOPR, DOE described its expectation that the impacts of any learning-based controls would vary based on specific field installation and usage scenarios. 87 FR 18936, 18945. DOE stated that it was not aware of, and interested parties had not previously provided, any data that could be used to determine the impacts of learning-based controls on energy use (*e.g.,* by increasing the amount of time spent in either accessory low power mode or refrigeration low power mode rather than vending mode). *Id.* DOE also tentatively maintained its prior determination that it would be difficult to develop a repeatable and reproducible test procedure to evaluate the energy savings of such controls during a 24-hour test in a laboratory. *Id.* For these reasons, DOE did not propose to account for ''learning-based'' controls in the test procedure. *Id.* DOE tentatively determined to continue accounting for operation in accessory low power mode and refrigeration low power mode, as described in the following sections. *Id.*

NAMA commented that it disagrees with a comment submitted by the Appliance Standards Awareness Project (ASAP) and Natural Resources Defense Council (NRDC) in response to the May 2021 RFI that asserted that maintaining the provisions for low power mode testing, which are not included in ANSI/ASHRAE 32.1–2017, would incentivize manufacturers to incorporate more energy management controls to reduce energy consumption. (NAMA, No. 13, pp. 2–3; *see also* ASAP and NRDC, No. 4, p. 1) NAMA stated that its members are constantly improving the energy efficiency of BVMs, and manufacturers will use energy management controls when the improvement to efficiency and the cost are appropriate. *Id.*

NAMA also stated that it is not prepared to comment on the energy benefits of ''learning-based'' energy

[15] ''Low power mode'' means a state in which a BVM's lighting, refrigeration, and/or other energy-using systems are automatically adjusted (without user intervention) such that they consume less energy than they consume in an active vending environment. *See* section 1.2 of appendix B.

management controls. (NAMA, No. 14, p. 6) NAMA commented that this is a new and changing field and suggested that DOE not engage in this investigation at this time, as the technologies are still unknown. *Id.* NAMA added that the impacts of any learning-based controls would vary greatly by the specific field installation and usage scenarios, many of which are set by the end user, not the BVM manufacturer. *Id.*

At this time, DOE remains unaware of, nor have interested parties provided, any data that could be used to determine the impacts of learning-based controls on energy use (*e.g.,* by increasing the amount of time spent in either accessory low power mode or refrigeration low power mode rather than vending mode). DOE also maintains its prior determination that it would be difficult to develop a repeatable and reproducible test procedure to evaluate the energy savings of such controls during a 24-hour test in a laboratory. For these reasons, DOE has determined not to amend the test procedure to account for ''learning-based'' controls, consistent with the March 2022 NOPR. DOE has determined to continue accounting for operation in accessory low power mode and refrigeration low power mode in the test procedure, as described in the following sections.

a. Accessory Low Power Mode

Section 1.2 of appendix B defines accessory low power mode as a state in which a BVM's lighting and/or other energy-using systems are in low power mode, but not a refrigeration low power mode. Functions that may constitute an accessory low power mode may include, for example, dimming or turning off lights, while not including adjustment of the refrigeration system to elevate the temperature of the refrigerated compartment(s). Section 2.2.4 of appendix B states that accessory low power mode may be engaged for the final 6 hours of the 24-hour test period and requires that the BVM be operated in the lowest energy-consuming lighting and control settings for testing this mode. Section 2.2.4 also requires that any automatic activation of refrigeration low power modes be prevented during the accessory low power mode test period.

The 24-hour test procedure starts after a BVM achieves stabilization as determined in vending mode. *See* section 2.1.1.1 of appendix B. The test period ends with 6 hours of operation in accessory low power mode, a different operating state than at the start. Although the refrigeration system and cabinet temperatures would likely not change in accessory low power mode (because this mode does not include adjustment of the refrigeration system to elevate the temperature of the refrigerated compartment(s)), a transient recovery period may be required for a BVM to return to stable operation in vending mode after 6 hours operating in accessory low power mode. If such a recovery period exists, testing the accessory low power mode during the middle of the 24-hour test period may be more representative by capturing any transition periods between operating modes.

In the March 2022 NOPR, DOE discussed its observations from testing that measured temperatures remain unchanged during operation in vending mode and accessory low power mode. *Id.* DOE also explained that the existing test approach limits test burden by requiring only one operating mode transition during the 24-hour test period. *Id.* Moving the accessory low power mode operation to a period other than at the end of the 24-hour test period may require technicians to provide additional input to the unit during the test (*i.e.,* once to enter accessory low power mode and again to reenter vending mode), depending on the BVM's controls. *Id.* For these reasons, DOE did not propose in the March 2022 NOPR any changes to the current test procedure approach of requiring accessory low power mode to be tested at the end of the 24-hour test period. *Id.*

In the March 2022 NOPR, DOE acknowledged in response to commenters that BVMs may be used in a variety of locations and that the actual duration of accessory low power mode use will vary based on installation location. 87 FR 18936, 18946. In the NOPR preceding the July 2015 Final Rule, DOE stated that the 6-hour duration was selected as a representative length of time for the low power mode test period based on the fact it is intended to represent off hours between periods of vending when the facility may be closed or have low occupancy. 79 FR 46908, 46926. While DOE recognized that there exists a range of types of low power mode controls and time periods for which these controls are enabled, DOE determined that a timeframe of 6 hours was a reasonable representation of average field use. *Id.*

In the March 2022 NOPR, DOE stated it was not aware of data indicating that durations other than the currently defined 6 hours would be more representative of typical BVM operation in accessory low power mode. 87 FR 18936, 18946. The intent of the accessory low power mode test period remains unchanged from the July 2015 Final Rule approach (*i.e.,* representing off hours between periods of vending when the facility may be closed or have low occupancy). *Id.* Given the lack of any data supporting a change to this approach, DOE did not propose any changes to the 6-hour duration for accessory low power mode testing. *Id.*

NAMA commented that it agrees with DOE's conclusion not to change the accessory low power mode testing at this time. (NAMA, No. 14, p. 6) NAMA also agreed with DOE that BVMs may be used in a variety of locations and the actual duration of the accessory low power mode will be based on the installation location as well as the choice of the customer/user. *Id.* NAMA commented that the BVM manufacturer may not have control over either this period or the environment, and these are at the discretion of the customer. *Id.* Finally, NAMA commented that the current method works and that NAMA believes it is better to establish a clear, reasonable, and reproducible method than it is to measure something so highly variable. *Id.*

In consideration of these comments, and lacking any new information that would contradict DOE's prior considerations of this issue, DOE has determined to maintain the existing accessory low power mode approach, consistent with the March 2022 NOPR.

b. Refrigeration Low Power Mode

Section 1.2 of appendix B defines refrigeration low power mode as a state in which a BVM's refrigeration system is in low power mode because of elevation of the temperature of the refrigerated compartment(s). Section 2.3.2.1 of appendix B includes provisions for confirming the presence of a refrigeration low power mode, either through an increase in average next-to-vend beverage temperature or lack of compressor operation. Unlike accessory low power mode, appendix B does not include a direct test of refrigeration low power mode. Instead, BVMs with refrigeration low power mode receive a 3-percent reduction in DEC as measured. *See* section 2.3.2 of appendix B.

In the July 2015 Final Rule, DOE determined that a 3-percent energy reduction was more appropriate than a physical test of refrigeration low power mode because refrigeration low power modes are extremely variable in their control strategies and operation and may require instructions from the manufacturer to accommodate specific provisions of a physical test. 80 FR

45758, 45785. DOE stated that a physical test would reduce consistency and repeatability and would make the method impractical to implement. *Id.*

DOE established the 3-percent credit for refrigeration low power mode by testing several BVMs with this mode. DOE noted in the July 2015 Final Rule that this value is an average that is representative of the common types of refrigeration low power modes available in the marketplace. 80 FR 45758, 45786.

In the March 2022 NOPR, DOE did not propose any changes to the current refrigeration low power mode and validation test method. 87 FR 18936, 18946. DOE also tentatively determined that the challenges of implementing a refrigeration low power mode test would remain the same as those considered in the July 2015 Final Rule. *Id.* at 87 FR 18936, 18947. Specifically, DOE observed that the implementation of refrigeration low power mode would depend on the specific control parameters entered by the user or installer regarding duration, operating temperatures, and operation of the refrigeration system. *Id.* Additionally, establishing a consistent, repeatable test (*i.e.,* measuring refrigeration low power mode operation over a defined duration from initiation of the low power mode until temperature recovery to the specified test temperature) may require specific instructions from the manufacturer to modify the controls in such a way as to accommodate the specific requirements of a physical test. *Id.* Testing on a consistent basis would also likely require an iterative process to identify the appropriate test settings. *Id.* Due to the difficulty of accounting for the wide variety of refrigeration low power modes in a consistent, fair, and reasonable manner, as well as the potential burden of any such test approach, DOE did not propose any changes to the current calculation approach to account for operation in refrigeration low power mode. *Id.*

In the March 2022 NOPR, DOE also did not propose any changes to the 3-percent credit as the energy reduction associated with refrigeration low power mode. 87 FR 18936, 18947. DOE acknowledged that the actual energy impact of refrigeration low power mode would vary depending on the user-specified control parameters for that mode, including duration and temperature settings or refrigeration system control. *Id.* The investigative testing used to determine the 3-percent credit assumed 6 hours of operation in refrigeration low power mode, including the time needed for temperature recovery. 79 FR 46908, 46925–46926. DOE did not propose any changes to the 6-hour test period for accessory low power mode, and therefore is maintaining the estimate of refrigeration low power mode impact based on that same duration. *Id.*

In the March 2022 NOPR, DOE requested comment on its initial determination to maintain the existing calculation approach to account for operation in refrigeration low power mode. 87 FR 18936, 18947. DOE continued to seek information and data on whether the assumed operating period (6 hours) and corresponding energy consumption impact (3 percent) are appropriate for BVMs operating in refrigeration low power mode. *Id.*

NAMA commented that it did not believe any amendments were necessary for the definition of refrigeration low power mode. (NAMA, No. 14, p. 7) NAMA added that it was not aware of any other refrigeration low power mode that cannot meet the definition or validate the test method. *Id.*

NAMA also commented in response to DOE's questions of whether a physical test to account for low power mode is feasible and what burden would be associated, stating it did not believe a physical test was necessary, and any such test would be a significant burden to manufacturers. (NAMA, No. 14, p. 7) NAMA stated that there are many such low power modes for refrigeration based on end customer use, not necessarily by the BVM manufacturer. *Id.* NAMA agreed with DOE that the challenges of implementing a refrigeration low power mode test remain the same as in 2015. *Id.*

NAMA further commented that manufacturers do not own the equipment in the field and often have no contact with the machines once placed in the field. NAMA stated that from what little information it has, the 3-percent credit and the 6-hour low power mode test period are reasonable, approximate the current status, and are as accurate as possible at this time. (NAMA, No. 14, p. 7) NAMA also noted that some of the commenters stated that the 3-percent credit might be inhibiting to technology, and that NAMA members do not agree with this assessment.[16] *Id.*

In consideration of these comments, and lacking any new information that would contradict DOE's prior considerations of this issue, DOE is maintaining the existing test procedure provisions and 3-percent energy credit for refrigeration low power mode, consistent with the March 2022 NOPR.

7. Reloading and Recovery Periods

The existing DOE test procedure considers BVM performance only during stable operation (including any operation in accessory low power mode). During typical use, BVMs are regularly opened and restocked with warmer beverages. DOE discussed in the March 2022 NOPR that accounting for BVM energy use during restocking periods and the subsequent product temperature recovery periods may better represent the actual energy use of BVMs during normal operation. 87 FR 18936, 18947.

As stated in section III.B of this document, ANSI/ASHRAE Standard 32.1–2022 provides an additional recovery test to determine the temperature recovery time of the BVM when loaded with product at a certain temperature, whereas appendix B contains no such test. This recovery test does not include a measurement of the corresponding energy consumption. Table 2 in ANSI/ASHRAE Standard 32.1–2022 specifies the reloaded sealed beverage temperature, 90 °F, and the final, instantaneous average next-to-vend beverage temperature, 40 °F, for the recovery test. Additionally, Table 4 in ANSI/ASHRAE Standard 32.1–2022 lists the door-open durations, between 10 and 20 minutes, required during the recovery test while reloading the BVM.

DOE also discussed in the March 2022 NOPR that based on typical operating descriptions provided in vending industry websites,[17] DOE expected that BVM restocking events are relatively infrequent, on the order of once per week, while the remainder of BVM operating time is spent in stable operation. *Id.* DOE tentatively determined that the current test procedure based on stable operation measures energy consumption during a representative average use cycle or period of use and therefore did not propose any additional testing to account for reloading events. *Id.*

In response to the March 2022 NOPR, NAMA commented that the current appendix B does not contain a temperature recovery period. (NAMA, No. 14, pp. 7–8) NAMA stated that while machine manufacturers do not have daily contact with machines once in the field, from what NAMA can tell

[16] NAMA did not specify the commenters referenced, but DOE expects that NAMA is referencing the comment from ASAP and NRDC that stated that the 3-percent credit may be inhibiting further improvements by failing to differentiate between refrigeration low power mode control strategies. (ASAP and NRDC, No. 4, p. 1)

[17] *See www.vendnetusa.com/blogs/news/how-often-should-you-restock-your-vending-machines?_pos=1&_sid=bc71729a1&_ss=r* and *www.vendnm.com/often-restock-inspect-vending-machine/*, both of which refer to restocking once per week.

BVM restocking does not represent significant change in yearly energy consumption. *Id.* NAMA agreed with DOE's assertion that restocking appears to be relatively infrequent, on the order of once a week. *Id.* NAMA also stated that an additional test for these characteristics is not needed nor reasonable. *Id.*

The Joint Commenters encouraged DOE to investigate units that may have frequent door openings and to consider test procedure amendments for this type of product. (Joint Commenters, No. 13, p. 2) The Joint Commenters specifically described what appears to be a reach-in style unit on the market that is designed so that users open the door to reach in and obtain the beverage product, instead of the product being vended from a chute.[18] *Id.* The Joint Commenters stated that with such a design, the current and proposed test procedures would not capture door openings, likely underestimating the energy consumption. *Id.*

With regard to the specific reach-in style unit described by the Joint Commenters, DOE has determined that while this unit appears to contain a payment mechanism, the design and function of the unit appears to meet the definition of a commercial refrigerator, freezer, and refrigerator freezer at 10 CFR 431.62 and does not meet the definition of a refrigerated bottled or canned beverage vending machine at 10 CFR 431.292.

In consideration of these comments and lacking any new information that would contradict DOE's prior considerations of this issue, DOE has determined to maintain the current test procedure without any reloading or recovery period requirements, consistent with the March 2022 NOPR.

8. Refrigerant Leak Mitigation Controls

The current BVM test procedure requires that, unless specified otherwise, all standard components that would be used during normal operation of the basic model in the field and are necessary to provide sufficient functionality for cooling and vending products in field installations (*i.e.,* product inventory, temperature management, product merchandising (including, *e.g.,* lighting or signage), product selection, and product transport and delivery) shall be in place during testing and shall be set to the maximum energy-consuming setting if manually adjustable. *See* section 2.2.5 of appendix B. Appendix B further requires that components not necessary for the inventory, temperature management, product merchandising (*e.g.,* lighting or signage), product selection, and product transport and delivery shall be de-energized, or if they cannot be de-energized without preventing the operation of the machine, then they shall be placed in the lowest energy consuming state. *Id.* Any components with controls that are permanently operational and cannot be adjusted by the machine operator shall be operated in their normal setting. *Id.*

Leak mitigation controls are a component that may be offered on BVMs, particularly in conjunction with flammable refrigerants. In a final rule published April 10, 2015, the Environmental Protection Agency listed propane (R–290), isobutane (R–600a), and the hydrocarbon blend R–441A as acceptable refrigerants for use in BVMs, subject to a 150-gram charge limit per refrigeration circuit and other safety measures to address flammability. 80 FR 19454, 19491. Due to the flammability of these refrigerants, BVMs using hydrocarbon refrigerants may need to implement additional controls and components to mitigate the risk of ignition from any potential refrigerant leaks. The need for such controls also may vary depending on the intended installation location for BVMs.

To the extent that leak mitigation controls on a particular BVM are a user-controllable accessory (*i.e.,* if they can be turned off), such a BVM would be able to provide product inventory, temperature management, product merchandising, product selection, and product transport and delivery without the leak mitigation controls functioning, in which case such controls would be de-energized for testing pursuant to the requirements of section 2.2.5 of appendix B. However, if the leak mitigation controls are permanently operational and cannot be adjusted by the user, section 2.2.5 of appendix B requires that such controls be operated in their normal setting during testing.

DOE tentatively determined in the March 2022 NOPR that although section 2.2.5 of appendix B currently addresses the use of refrigerant leak mitigation controls during testing, further specification may help ensure reproducible testing. 87 FR 18936, 18948. DOE therefore proposed to amend the test procedure to provide specific instructions regarding the use of refrigerant leak mitigation controls consistent with the current requirements in appendix B. *Id.* Specifically, DOE proposed in the newly added section 2.2.5.11 of appendix B that if the use of refrigerant leak mitigation controls is a user-controlled function (*e.g.,* if the use of the controls are optional and intended only for specific installations), the controls would be de-energized or in their lowest energy consuming state during testing. *Id.* If refrigerant leak mitigation controls are not user controlled and are always operational, DOE proposed that the controls would be operational for testing. *Id.*

In the March 2022 NOPR, DOE acknowledged that the investigative work regarding refrigerant leak mitigation is ongoing; however, DOE stated that if refrigerant leak mitigation controls always operate and cannot be de-energized by the user, accounting for the energy use of such controls would ensure that the DOE test procedure measures energy consumption during a representative average use cycle or period of use as required by EPCA. 42 U.S.C. 6293(b)(3); 87 FR 18936, 18948.

As discussed in the March 2022 NOPR, the proposed instructions regarding refrigerant leak mitigation controls are consistent with the current requirements in section 2.2.5 of appendix B, therefore, DOE did not expect the proposed amendments to affect current BVM ratings or result in any additional testing costs. 87 FR 18936, 18948. DOE requested comment on the proposed instructions regarding refrigerant leak mitigation control settings for BVM testing. *Id.* Specifically, DOE requested information regarding how such controls are currently or expected to be implemented in BVMs, including whether the controls can be controlled by the user. *Id.*

In the NOPR public meeting, AHRI described the complexity of refrigerant transitions with respect to timing and stated that it would be helpful for DOE to coordinate with other agencies on this matter. (AHRI, Public Meeting Transcript, No. 12, pp. 18–20) AHRI specifically mentioned the need for building codes to be in place in order to use new refrigerants (*e.g.,* R–290). *Id.*

In response to the March 2022 NOPR, NAMA commented that its members have been working for more than 5 years to adopt new lower global warming potential (GWP) refrigerants. (NAMA, No. 14, p. 8) NAMA further commented that in 2021, DOE requested information on additional equipment or controls that manufacturers might need to mitigate a leak situation, and that in 2021 NAMA was engaged with Oak Ridge National Laboratory and DOE in a Cooperative Research and Development Agreement (CRADA). (NAMA, No. 14, p. 8) NAMA noted that the COVID–19 pandemic caused many delays in the CRADA,

[18] See *www.buyvending.com/shop/new-vending-machines/drink-vending-machines/piranha-g525-drink-vending-machine-cashless/.*

resulting in delayed and reduced testing. *Id.* NAMA commented that an interim report issued at the end of 2021 showed that an increase in ventilation is helpful in reducing the concentration should a leak in the refrigerant system occur. *Id.* NAMA commented that because the new refrigerants are ASHRAE 34 Class A–3 and considered flammable, BVM manufacturers must explore and take steps to reduce the risk of a leak from the refrigerant system. *Id.* NAMA commented that this type of equipment might need to be energized in some circumstances to move air all the time, in addition to controls that could energize the ventilation equipment when a leak is discovered. *Id.* NAMA stated that a specific, accurate, reliable refrigerant sensor is not yet available; therefore, NAMA is continuing the CRADA in 2022 to consider other means of sensing a leak. *Id.*

NAMA further commented that the use of additional ventilation, whether all the time or in a leak scenario, is important for product and consumer safety, although at this time NAMA does not know exactly what these mechanisms might be. (NAMA, No. 14, p. 8) NAMA stated that DOE should not impede technology options by assessing an ''energy penalty'' to BVM manufacturers when the manufacturers deem it necessary to use such safety components. *Id.* NAMA urged DOE not to include the energy use of these safety measures, particularly not before results of the current CRADA are available. *Id.* NAMA stated that it is highly unlikely that leak mitigation components would be customer controlled if they are used. *Id.* NAMA stated that at this time, it is too early to predict what leak mitigation controls might be used. *Id.*

NAMA further stated that it understands DOE and other branches of the U.S. Government encourage the use of low GWP refrigerants and asked that all measures under the DOE test procedure not increase the time to adopt these refrigerants. *Id.*

In response to the March 2022 NOPR, the Joint Commenters supported DOE's proposed specifications for refrigerant leak mitigation controls, specifically commenting that if the refrigerant leak mitigation controls are always on, they should be energized and operational for testing. (Joint Commenters, No. 13, p. 2)

In consideration of the feedback provided by commenters, DOE has determined to amend the test procedure to include additional instructions for refrigerant leak mitigation controls; however, DOE has determined to modify the test procedure provisions as originally proposed in the March 2022 NOPR to better address commenters' concerns that refrigerant leak mitigation controls are not a consumer-controllable function. Rather, comments from stakeholders suggest that refrigerant leak mitigation controls, if included in a BVM, would be integral to the function of the unit.

Therefore, DOE is modifying the proposed provisions of section 2.2.5.11 of appendix B to more accurately differentiate between refrigerant leak mitigation controls that are independent from the refrigeration or vending performance of the BVM (rather than describing such controls as a user-controlled function, as proposed in the March 2022 NOPR) from controls that are integrated into the BVM such that they cannot be de-energized without disabling the refrigeration or vending functions of the BVM or modifying the circuitry (rather than describing such controls as not user-controlled and always operational, as proposed in the March 2022 NOPR). The finalized language of section 2.2.5.11 specifies that for refrigerant leak mitigation controls that are independent from the refrigeration or vending performance of the BVM, such controls must be disconnected, disabled, or otherwise de-energized for the duration of testing. For refrigerant leak mitigation controls that are integrated into the BVM cabinet such that they cannot be de-energized without disabling the refrigeration or vending functions of the BVM or modifying the circuitry, such controls must be placed in an external accessory standby mode, if available, or their lowest energy-consuming state.

DOE notes that this provision is similar to DOE's current test procedure provisions for external lighting and displays. Consistent with the March 2022 NOPR, DOE does not expect this amendment to affect current BVM ratings or result in any additional testing costs.

9. Connected Functions

The current DOE test procedure for BVMs does not include specific test requirements regarding connected or smart features, although section 2.2.5 of appendix B provides instructions regarding accessories. Section 2.2.5 of appendix B generally requires all components necessary to provide sufficient functionality for cooling and vending products in field installations (*i.e.,* product inventory, temperature management, product merchandising (including, *e.g.,* lighting or signage), product selection, and product transport and delivery) to be in place during testing and set to the maximum energy consuming setting if manually adjustable. Other components not necessary for such functionality are de-energized or set to their lowest energy-consuming state.

In the March 2022 NOPR, DOE discussed that based on a review of BVMs available on the market, the types of connected functions identified by commenters in response to the May 2021 RFI did not appear to be common. 87 FR 18936, 18948–18949. Additionally, DOE lacked information on how frequently connected functions would be used on BVMs. 87 FR 18936, 18949. Without such data, DOE had no information to suggest that the current testing approach would produce results that are unrepresentative of an average use cycle or period of use. *Id.* DOE, therefore, did not propose any changes to the current test procedure approach in section 2.2.5 of appendix B as applicable to connected functions. *Id.* As described, the current approach requires testing with connected functions energized if they are necessary to provide sufficient functionality for cooling and vending products in field installations. Connected functions that are not necessary to provide sufficient functionality for cooling and vending products in field installations are de-energized or placed in the lowest energy-consuming state.

In the March 2022 NOPR, DOE requested comment on its tentative determination to maintain the existing test procedure approach in section 2.2.5 of appendix B as applicable to connected functions. 87 FR 18936, 18949. DOE continued to request information and data on the prevalence of connected functions, the BVM functions associated with them, how often they are used, and their corresponding energy use impacts. *Id.*

NAMA commented that it does not have additional information on the issue of connected functions and the energy impact of these functions at this time. (NAMA, No. 14, pp. 8–9) NAMA noted that its industry is in the early phase of investigating these functions and hopes to have additional information in future years. *Id.*

Lacking any additional information that would contradict DOE's prior considerations of this issue, DOE has determined to maintain the current test procedure approach in section 2.2.5 of appendix B as applicable to connected functions, consistent with the March 2022 NOPR.

10. Condenser Conditions

In the March 2022 NOPR, DOE acknowledged that the energy consumption of BVMs can change over the lifetime of the equipment due to

lack of maintenance or other factors; however, the DOE test procedure considers the performance of new BVMs without considering any potential long-term performance of the unit. 87 FR 18936, 18949. Regarding the specific topic of condenser coil fouling, DOE stated that the end user is responsible for properly maintaining the BVM, including any condenser cleaning. *Id.* Accordingly, DOE did not propose to amend its test procedure to account for operation with clogged condensers. *Id.*

While DOE does not account for lifetime energy consumption in its BVM test procedure, it does consider energy consumption over the lifetime of the equipment in the analysis conducted in support of developing potential amended energy conservation standards for BVMs. In such an analysis, DOE may apply adjustment factors to consider performance degradation over time.

In the March 2022 NOPR, DOE requested any additional information and data on how BVM energy consumption may change over the lifetime of the equipment. 87 FR 18936, 18949. DOE also requested comment on whether any performance degradation occurs consistently for all BVMs, or whether the impacts vary depending on equipment type or specific equipment designs. *Id.*

NAMA referenced comments submitted in response to the May 2021 RFI by CoilPod, which questioned whether it would be possible for the test procedure to account for the lack of coil cleanings by BVM users. (NAMA, No. 14, p. 9; *see also* CoilPod, No. 3, p. 1) NAMA reiterated that BVM manufacturers conduct testing for compliance with DOE standards, but they do not own the machines once they are placed in a retail landscape and have no ability to control whether cleaning is accomplished or not. *Id.* NAMA stated that even if the machine came back to the manufacturer for repair, energy testing would not be performed. *Id.* NAMA commented that it is not aware of other electrical appliances covered by DOE's standards program that need to account for changes in energy use if maintenance is not performed. *Id.*

DOE has determined to maintain the current test procedure and not amend the test procedure to account for the performance of the condenser over the lifetime of a BVM, consistent with the March 2022 NOPR.

11. Removal of Obsolete Provisions

As discussed in section I.B, appendix B is required for testing BVMs manufactured on or after January 8, 2019. As such, appendix A is now obsolete for new units being manufactured. Therefore, in the March 2022 NOPR, DOE proposed to remove appendix A. 87 FR 18936, 18949. DOE did not propose to redesignate appendix B as appendix A in order to avoid confusion regarding the appropriate version of the test procedure required for use. *Id.*

DOE did not receive comments in response to this topic and has determined to remove appendix A as proposed in the March 2022 NOPR. DOE has determined not to redesignate appendix B as appendix A in order to avoid confusion regarding the appropriate version of the test procedure required for use.

Additionally, the introductory note to appendix B currently explains when manufacturers are required to use either appendix A or B for compliance with energy conservation standards and representations of energy use. DOE proposed to amend the introductory note to remove the obsolete instructions and to instead provide clarifying language regarding application of the payment mechanism provisions, as discussed in section III.C.5 of this document. 87 FR 18936, 18949.

DOE did not directly receive comments on this topic. However, as discussed in section III.C.5 of this final rule, DOE is not amending the current provisions regarding the payment mechanism adder. Therefore, DOE is not including clarifying language in the revised appendix note regarding application of the payment mechanism provisions as proposed in the March 2022 NOPR.

D. Test Procedure Costs and Harmonization

1. Test Procedure Costs and Impact

In the March 2022 NOPR, DOE proposed to amend the existing test procedure for BVMs by referencing the most recent industry test standard, providing setup instructions for non-beverage shelves, updating the LAPT definition and instructions, requiring testing of coin and bill payment mechanisms if shipped with the BVM (but not until the compliance date of any amended energy conservation standards), specifying setup instructions for leak mitigation controls, and removing the obsolete appendix A. 87 FR 18936, 18949. DOE tentatively determined that these proposed amendments would not impact testing costs. *Id.* DOE requested comment on the tentative determination that manufacturers would not incur any additional costs as a result of the proposed amended test procedure. *Id.* DOE also requested comment on its estimate of per-test costs, should manufacturers retest their BVM basic models to comply with any future amended BVM energy conservation standards. *Id.*

NAMA commented that it believes several of the changes discussed and proposed in the NOPR are burdensome and will not assist DOE in ascertaining more accurate energy use of BVMs. (NAMA, No. 14, p. 2)

NAMA commented that at the time of the May 2021 RFI, the industry was struggling during the height of the COVID–19 pandemic. *Id.* NAMA stated that many member company businesses shut down and the entire industry was trying to survive with factories shuttered, employees working from home, and low sales. *Id.* NAMA commented that it appreciates DOE's understanding that the industry has faced a tumultuous period and is still working to return to pre-pandemic levels. *Id.*

NAMA commented that it agrees in principle with having tests for energy use and energy efficiency when appropriate, when necessary, and when limited in scope. (NAMA, No. 14, p. 9) NAMA noted, however, that many of the commenters represent organizations that do not have to spend hundreds of person-hours every week conducting tests or incur the cost of using outside laboratories. *Id.* NAMA commented that while it is easy for such organizations to comment in favor of additional tests, these additional tests will not bring more overall accuracy, rather only additional costs, and will do so when this manufacturing segment is just recovering from a period of economic downturn due to the COVID–19 pandemic. *Id.*

Other than the proposed amendment to measure coin and bill payment mechanisms, the proposals in the March 2022 NOPR were generally consistent with requirements under the current DOE test procedure. As discussed in section III.C.5 of this final rule, DOE is not amending the test provisions with regard to payment mechanisms as it proposed to do in the March 2022 NOPR. Instead, DOE has determined to maintain the current test provisions, which specify a default 0.2 kWh/day adder. As a result, the amendments in this final rule harmonize with the industry standard or provide additional test instructions but do not substantively change testing as currently required in appendix B.

As discussed, the amendments improve the clarity of the DOE test procedure while not substantively changing the current test approach. As

a result, DOE has determined that the amendments will not result in any additional costs for manufacturers, and manufacturers will be able to rely on data generated under the current test procedure for BVMs already available on the market.

2. Harmonization With Industry Standards

DOE's established practice is to adopt relevant industry standards as DOE test procedures unless such methodology would be unduly burdensome to conduct or would not produce test results that reflect the energy efficiency, energy use, water use (as specified in EPCA), or estimated operating costs of that product during a representative average use cycle or period of use. 10 CFR 431.4; section 8(c) of appendix A of 10 CFR part 430, subpart C. In cases where the industry standard does not meet EPCA statutory criteria for test procedures, DOE will make modifications through the rulemaking process to these standards as the DOE test procedure.

As discussed, the test procedure at appendix B incorporates by reference ANSI/ASHRAE Standard 32.1–2010. This standard provides definitions, test conditions, and test methods for measuring refrigerated volume and energy consumption of BVMs. In the March 2022 NOPR, DOE requested comments on the benefits and burdens of the proposed updates and additions to industry standards referenced in the test procedure for BVMs. 87 FR 18936, 18950.

DOE did not receive comments in response to this topic. Consistent with the March 2022 NOPR, DOE notes that the BVM test procedure at appendix B includes a number of deviations to ANSI/ASHRAE Standard 32.1–2010. Specifically, appendix B refers only to certain sections of ANSI/ASHRAE Standard 32.1–2010, includes additional definitions, provides detailed setup and settings instructions, accounts for operation in low power modes and payment mechanism energy consumption, and provides rounding instructions. These deviations were established to limit test burden (*i.e.,* by not requiring additional testing as specified in ANSI/ASHRAE Standard 32.1–2010), improve representativeness, and improve repeatability and reproducibility of the DOE test procedure as compared to the procedure in ANSI/ASHRAE Standard 32.1–2010. Consistent with the March 2022 NOPR proposals, DOE is amending the test procedure to incorporate by reference the most recent version of the industry standard, ANSI/ASHRAE Standard 32.1–2022. This version of the standard addresses certain deviations between appendix B and ANSI/ASHRAE Standard 32.1–2010. For other deviations not addressed in ANSI/ASHRAE Standard 32.1–2022, DOE has determined that the existing deviations in appendix B are necessary and appropriate.

E. Effective and Compliance Dates

The effective date for the adopted test procedure amendment will be 30 days after publication of this final rule in the **Federal Register**. EPCA prescribes that all representations of energy efficiency and energy use, including those made on marketing materials and product labels, must be made in accordance with an amended test procedure, beginning 180 days after publication of the final rule in the **Federal Register**. (42 U.S.C. 6293(c)(2)) EPCA provides an allowance for individual manufacturers to petition DOE for an extension of the 180-day period if the manufacturer may experience undue hardship in meeting the deadline. (42 U.S.C. 6293(c)(3)) To receive such an extension, petitions must be filed with DOE no later than 60 days before the end of the 180-day period and must detail how the manufacturer will experience undue hardship. (*Id.*)

IV. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866,13563, and 14094

Executive Order (E.O.) 12866, ''Regulatory Planning and Review,'' as supplemented and reaffirmed by E.O. 13563, ''Improving Regulation and Regulatory Review,'' 76 FR 3821 (Jan. 21, 2011) and E.O. 14094, ''Modernizing Regulatory Review,'' 88 FR 21879 (April 11, 2023), requires agencies, to the extent permitted by law, to (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public. DOE emphasizes as well that E.O. 13563 requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. In its guidance, the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget (OMB) has emphasized that such techniques may include identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in the preamble, this final regulatory action is consistent with these principles.

Section 6(a) of E.O. 12866 also requires agencies to submit ''significant regulatory actions'' to OIRA for review. OIRA has determined that this final regulatory action does not constitute a ''significant regulatory action'' under section 3(f) of E.O. 12866. Accordingly, this action was not submitted to OIRA for review under E.O. 12866.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of a final regulatory flexibility analysis (FRFA) for any final rule where the agency was first required by law to publish a proposed rule for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, ''Proper Consideration of Small Entities in Agency Rulemaking,'' 67 FR 53461 (August 16, 2002), DOE published procedures and policies on February 19, 2003 to ensure that the potential impacts of its rules on small entities are properly considered during the DOE rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel's website: *www.energy.gov/gc/office-general-counsel.* DOE reviewed this final rule under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003.

DOE has concluded that this final rule would not have a significant impact on a substantial number of small entities. The factual basis for this certification is as follows:

For manufacturers of BVMs, the Small Business Administration (SBA) has set a size threshold, which defines those entities classified as ''small businesses'' for the purposes of the statute. DOE used the SBA's small business size standards to determine whether any small entities would be subject to the requirements of the rule. In 13 CFR 121.201, the SBA sets a threshold of 1,000 employees or fewer for an entity to be considered as a small business for this category. The equipment covered by this rule is classified under North American Industry Classification System (NAICS) code 333310,[19] ''Commercial and Service Industry Manufacturing.''

DOE used publicly available information to identify small businesses that manufacture BVMs covered in this rulemaking. DOE identified seven companies that are original equipment manufacturers (OEMs) of BVMs covered by this rulemaking. DOE screened out companies that do not meet the definition of a ''small business'' or are foreign-owned and operated. DOE identified three small, domestic OEMs using subscription-based business information tools to determine the number of employees and revenue of the potential small businesses.

Given that DOE is referencing the prevailing industry test procedure and maintaining a test procedure that is generally consistent with the existing requirements, DOE has determined the test procedure in this final rule would not increase burden for BVM manufacturers, including small businesses, or result in manufacturers needing to rerate BVMs.

Therefore, on the basis of there being no change in compliance burden, DOE certifies that this final rule does not have a ''significant economic impact on a substantial number of small entities,'' and that the preparation of a FRFA is not warranted. DOE transmitted a certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the SBA for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act of 1995

Manufacturers of BVMs must certify to DOE that their products comply with any applicable energy conservation standards. To certify compliance, manufacturers must first obtain test data for their products according to the DOE test procedures, including any amendments adopted for those test procedures. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, including BVMs. (*See generally* 10 CFR part 429.) The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (PRA). This requirement has been approved by OMB under OMB control number 1910–1400. Public reporting burden for the certification is estimated to average 35 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.

DOE is not amending the certification or reporting requirements for BVMs in this final rule. Instead, DOE may consider proposals to amend the certification requirements and reporting for BVMs under a separate rulemaking regarding appliance and equipment certification. DOE will address changes to OMB Control Number 1910–1400 at that time, as necessary.

Notwithstanding any other provision of the 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 PRA, unless that collection of information displays a currently valid OMB Control Number.

D. Review Under the National Environmental Policy Act of 1969

In this final rule, DOE establishes test procedure amendments that it expects will be used to develop and implement future energy conservation standards for BVMs. DOE has determined that this rule falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) and DOE's implementing regulations at 10 CFR part 1021. Specifically, DOE has determined that adopting test procedures for measuring energy efficiency of consumer products and industrial equipment is consistent with activities identified in 10 CFR part 1021, appendix A to subpart D, A5 and A6. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

E. Review Under Executive Order 13132

Executive Order 13132, ''Federalism,'' 64 FR 43255 (August 4, 1999), imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. The Executive order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE examined this final rule and determined that it 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. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of this final rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297(d)) No further action is required by Executive Order 13132.

F. Review Under Executive Order 12988

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, ''Civil Justice Reform,'' 61 FR 4729 (Feb. 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; (3) provide a clear legal standard for affected conduct rather than a general standard; and (4) promote simplification and burden reduction. Section 3(b) of Executive Order 12988 specifically requires that executive agencies make every reasonable effort to ensure that the regulation (1) clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to

[19] The size standards are listed by NAICS code and industry description and are available at: *www.sba.gov/document/support--table-size-standards* (last accessed on December 22, 2022).

review regulations in light of applicable standards in sections 3(a) and 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this final rule meets the relevant standards of Executive Order 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104–4, sec. 201 (codified at 2 U.S.C. 1531). For a regulatory action resulting in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed ''significant intergovernmental mandate,'' and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect small governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820; also available at *www.energy.gov/gc/office-general-counsel.* DOE examined this final rule according to UMRA and its statement of policy and determined that the rule contains neither an intergovernmental mandate, nor a mandate that may result in the expenditure of $100 million or more in any year, so these requirements do not apply.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This final rule will not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

DOE has determined, under Executive Order 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights,'' 53 FR 8859 (March 18, 1988), that this regulation will not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516 note) provides for agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). Pursuant to OMB Memorandum M–19–15, Improving Implementation of the Information Quality Act (April 24, 2019), DOE published updated guidelines which are available at *www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IQA%20Guidelines%20Dec%202019.pdf.* DOE has reviewed this final rule under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,'' 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OMB, a Statement of Energy Effects for any significant energy action. A ''significant energy action'' is defined as any action by an agency that promulgated or is expected to lead to promulgation of a final rule, and that (1) is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (3) is designated by the Administrator of OIRA as a significant energy action. For any significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use if the regulation is implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

This regulatory action is not a significant regulatory action under Executive Order 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as a significant energy action by the Administrator of OIRA. Therefore, it is not a significant energy action, and, accordingly, DOE has not prepared a Statement of Energy Effects.

L. Review Under Section 32 of the Federal Energy Administration Act of 1974

Under section 301 of the Department of Energy Organization Act (Pub. L. 95–91; 42 U.S.C. 7101), DOE must comply with section 32 of the Federal Energy Administration Act of 1974, as amended by the Federal Energy Administration Authorization Act of 1977. (15 U.S.C. 788; FEAA) Section 32 essentially provides in relevant part that, where a proposed rule authorizes or requires use of commercial standards, the notice of proposed rulemaking must inform the public of the use and background of such standards. In addition, section 32(c) requires DOE to consult with the Attorney General and the Chairman of the Federal Trade Commission (FTC) concerning the impact of the commercial or industry standards on competition.

The modifications to the test procedure for BVMs adopted in this final rule incorporates testing methods contained in certain sections of the following commercial standards: ANSI/ASHRAE Standard 32.1–2022, including reference to AHAM HRF–1–2016. DOE has evaluated these standards and is unable to conclude whether they fully comply with the requirements of section 32(b) of the FEAA (*i.e.,* whether they were developed in a manner that fully provides for public participation, comment, and review.) DOE has consulted with both the Attorney General and the Chairman of the FTC about the impact on competition of using the methods contained in these standards and has received no comments objecting to their use.

M. Congressional Notification

As required by 5 U.S.C. 801, DOE will report to Congress on the promulgation of this rule before its effective date. The report will state that it has been determined that the rule is not a ''major rule'' as defined by 5 U.S.C. 804(2).

N. Description of Materials Incorporated by Reference

AHAM HRF–1–2016 is referenced by ANSI/ASHRAE Standard 32.1–2022 as the industry-accepted method for determining refrigerated volume for BVMs. By reference to ANSI/ASHRAE

Standard 32.1–2022, the test procedure adopted in this final rule refers only to the refrigerated volume section of AHAM HRF–1–2016. AHAM HRF–1–2016 can be purchased at *www.aham.org/AHAM/Store.*

ANSI/ASHRAE Standard 32.1–2022 is an industry-accepted test procedure that measures capacity and efficiency of BVMs. The test procedure adopted in this final rule references various sections of ANSI/ASHRAE Standard 32.1–2022 that address definitions, test setup, instrumentation, test conduct, and calculations. ANSI/ASHRAE Standard 32.1–2022 is readily available at ANSI's website at *webstore.ansi.org.*

V. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this final rule.

List of Subjects in 10 CFR Part 431

Administrative practice and procedure, Confidential business information, Energy conservation test procedures, Incorporation by reference, Reporting and recordkeeping requirements.

Signing Authority

This document of the Department of Energy was signed on April 25, 2023, by Francisco Alejandro Moreno, Acting Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on April 25, 2023.

Treena V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

For the reasons stated in the preamble, DOE amends part 431 of chapter II of title 10, Code of Federal Regulations as set forth below:

PART 431—ENERGY EFFICIENCY PROGRAM FOR CERTAIN COMMERCIAL AND INDUSTRIAL EQUIPMENT

■ 1. The authority citation for part 431 continues to read as follows:

Authority: 42 U.S.C. 6291–6317; 28 U.S.C. 2461 note.

■ 2. Section 431.293 is revised to read as follows:

§ 431.293 Materials incorporated 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. To enforce any edition other than that specified in this section, the DOE must publish a document in the **Federal Register** and the material must be available to the public. All approved incorporation by reference (IBR) material is available for inspection at DOE, and at the National Archives and Records Administration (NARA). Contact DOE at: the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, 1000 Independence Ave. SW, EE–5B, Washington, DC 20585, (202) 586–9127, *Buildings@ee.doe.gov, https://www.energy.gov/eere/buildings/building-technologies-office.* For information on the availability of this material at NARA, visit *www.archives.gov/federal-register/cfr/ibr-locations.html* or email *fr.inspection@nara.gov.* The material may be obtained from the sources in the following paragraphs of this section:

(b) *AHAM.* Association of Home Appliance Manufacturers, 1111 19th Street NW, Suite 402, Washington, DC 20036; (202) 872–5955; *www.aham.org.*

(1) AHAM HRF–1–2016, *Energy and Internal Volume of Refrigerating Appliances,* copyright 2016; IBR approved for appendix B to this subpart.

(2) [Reserved]

(c) *ASHRAE.* American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., 1791 Tullie Circle NE, Atlanta, GA 30329; (404) 636–8400; *www.ashrae.org.*

(1) ANSI/ASHRAE Standard 32.1–2022 (ANSI/ASHRAE 32.1), *Methods of Testing for Rating Refrigerated Vending Machines for Sealed Beverages,* approved December 30, 2022; IBR approved for § 431.292 and appendix B to this subpart.

(2) [Reserved]

(d) *ASTM.* ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959; (877) 909–2786; *www.astm.org.*

(1) ASTM E 1084–86 (Reapproved 2009), *Standard Test Method for Solar Transmittance (Terrestrial) of Sheet Materials Using Sunlight,* approved April 1, 2009; IBR approved for § 431.292.

(2) [Reserved]

Appendix A to Subpart Q of Part 431 [Removed and Reserved]

■ 3. Remove and reserve appendix A to subpart Q of part 431.

■ 4. Appendix B to subpart Q of part 431 is revised to read as follows:

Appendix B to Subpart Q of Part 431—Uniform Test Method for the Measurement of Energy Consumption of Refrigerated Bottled or Canned Beverage Vending Machines

Note: Manufacturers must use the results of testing under this appendix to determine compliance with the relevant standards for refrigerated bottled or canned beverage vending machines at 10 CFR 431.296, revised as of January 1, 2023. Specifically, before October 31, 2023, representations must be based upon results generated either under this appendix as codified on June 5, 2023, or under 10 CFR part 431, subpart Q, appendix B, revised as of January 1, 2023. Any representations made on or after October 31, 2023, must be made based upon results generated using this appendix as codified on June 5, 2023.

0. Incorporation by Reference

DOE incorporated by reference in § 431.293 the entire standard for AHAM HRF–1–2016 and ANSI/ASHRAE Standard 32.1–2022; however, only enumerated provisions of those documents are applicable to this appendix as follows:

0.1. AHAM HRF–1–2016

(a) Section 4, ''Method for Computing Refrigerated Volume of Refrigerators, Refrigerator-Freezer, Wine Chillers, and Freezers'' as referenced in section 3.1 of this appendix.

(b) Reserved.

0.2. ANSI/ASHRAE Standard 32.1–2022

(a) Section 3, ''Definitions,'' as referenced in section 1 of this appendix.

(b) Section 4, ''Instruments,'' as referenced in section 2 of this appendix.

(c) Section 5, ''Vending Machine Capacity,'' and Normative Appendix C, ''Measurement of Volume,'' as referenced in sections 2 and 3.1 of this appendix.

(d) Section 6, ''Test Conditions,'' as referenced in section 2 of this appendix.

(e) Section 7.1, ''Test Procedures—General Requirements'' (except Section 7.1.2, ''Functionality,'' and Section 7.1.5.1, ''Beverage Temperature Test Packages''), and Section 7.2, ''Energy Consumption Test,'' (except Section 7.2.2.6), as referenced in sections 1 and 2 of this appendix.

1. *General.* In cases where there is a conflict, the language of the test procedure in this appendix takes precedence over ANSI/ASHRAE Standard 32.1–2022.

1.1 *Definitions.* In addition to the definitions specified in Section 3, ''Definitions,'' of ANSI/ASHRAE Standard 32.1–2022, the following definitions are also applicable to this appendix.

Accessory low power mode means a state in which a beverage vending machine's lighting and/or other energy-using systems are in low power mode, but that is not a

refrigeration low power mode. Functions that may constitute an accessory low power mode may include, for example, dimming or turning off lights, but does not include adjustment of the refrigeration system to elevate the temperature of the refrigerated compartment(s).

External accessory standby mode means the mode of operation in which any external, integral customer display signs, lighting, or digital screens are connected to main power; do not produce the intended illumination, display, or interaction functionality; and can be switched into another mode automatically with only a remote user-generated or an internal signal.

Low power mode means a state in which a beverage vending machine's lighting, refrigeration, and/or other energy-using systems are automatically adjusted (without user intervention) such that they consume less energy than they consume in an active vending environment.

Lowest application product temperature means either:

(a) For units that operate only at temperatures above the integrated average temperature specified in Table 1 of ANSI/ASHRAE Standard 32.1–2022, the lowest integrated average temperature a given basic model is capable of maintaining so as to comply with the temperature stabilization requirements specified in section 7.2.2.2 of ANSI/ASHRAE Standard 32.1–2022; or

(b) For units that operate only at temperatures below the integrated average temperature specified in Table 1 of ANSI/ASHRAE Standard 32.1–2022, the highest integrated average temperature a given basic model is capable of maintaining so as to comply with the temperature stabilization requirements specified in section 7.2.2.2 of ANSI/ASHRAE Standard 32.1–2022.

Refrigeration low power mode means a state in which a beverage vending machine's refrigeration system is in low power mode because of elevation of the temperature of the refrigerated compartment(s). To qualify as low power mode, the unit must satisfy the requirements described in section 2.3.2.1 of this appendix.

1.2 [Reserved]

2. *Test Procedure.* Conduct testing according to section 4, ''Instruments''; section 5, ''Vendible Capacity''; section 6, ''Test Conditions''; section 7.1, ''Test Procedures—General Requirements'' (except Section 7.1.2 ''Functionality'' and section 7.1.5.1 ''Beverage Temperature Test Packages''); and section 7.2, ''Energy Consumption Test'' (except section 7.2.2.6) of ANSI/ASHRAE Standard 32.1–2022, except as described in the following sections.

2.1. *Lowest Application Product Temperature.* If a refrigerated bottled or canned beverage vending machine is not capable of maintaining an integrated average temperature of 36 °F (±1 °F) during the 24-hour test period, the unit must be tested at the lowest application product temperature, as defined in section 1.1 of this appendix.

2.2. *Equipment Installation and Test Setup.* Except as provided in this section 2.2 of this appendix, the test procedure for energy consumption of refrigerated bottled or canned beverage vending machines shall be conducted in accordance with the methods specified in sections 7.1 through 7.2.2.7 under ''Test Procedures'' of ANSI/ASHRAE Standard 32.1–2022.

2.2.1. *Equipment Loading.* Configure refrigerated bottled or canned beverage vending machines to hold the maximum number of standard products.

2.2.1.1. *Non-Beverage Shelves.* Any shelves within the refrigerated compartment(s) for non-beverage merchandise only shall not be loaded for testing.

2.2.1.2. *Standard Products.* The standard product shall be standard 12-ounce aluminum beverage cans filled with a liquid with a density of 1.0 grams per milliliter (''g/mL'') ±0.1 g/mL at 36 °F. For product storage racks that are not capable of vending 12-ounce cans, but are capable of vending 20-ounce bottles, the standard product shall be 20-ounce plastic bottles filled with a liquid with a density of 1.0 g/mL ±0.1 g/mL at 36 °F. For product storage racks that are not capable of vending 12-ounce cans or 20-ounce bottles, the standard product shall be the packaging and contents specified by the manufacturer in product literature as the standard product (*i.e.,* the specific merchandise the refrigerated bottled or canned beverage vending machine is designed to vend).

2.2.1.3. *Standard Test Packages.* A standard test package is a standard product, as specified in section 2.2.1.2 of this appendix, altered to include a temperature-measuring instrument at its center of mass.

2.2.2. *Sensor Placement.* The integrated average temperature of next-to-vend beverages shall be measured in standard test packages in the next-to-vend product locations specified in section 7.1.5.2 of ANSI/ASHRAE Standard 32.1–2022. Do not run the thermocouple wire and other measurement apparatus through the dispensing door; the thermocouple wire and other measurement apparatus must be configured and sealed so as to minimize air flow between the interior refrigerated volume and the ambient room air. If a manufacturer chooses to employ a method other than routing thermocouple and sensor wires through the door gasket and ensuring the gasket is compressed around the wire to ensure a good seal, then it must maintain a record of the method used in the data underlying that basic model's certification pursuant to 10 CFR 429.71.

2.2.3. *Vending Mode Test Period.* The vending mode test period begins after temperature stabilization has been achieved, as described in section 7.2.2.2 of ANSI/ASHRAE Standard 32.1–2022 and continues for 18 hours for equipment with an accessory low power mode or for 24 hours for equipment without an accessory low power mode. For the vending mode test period, equipment with energy-saving features that cannot be disabled shall have those features set to the most energy-consuming settings, except for as specified in section 2.2.4 of this appendix. In addition, all energy management systems shall be disabled. Provide, if necessary, any physical stimuli or other input to the machine needed to prevent automatic activation of low power modes during the vending mode test period.

2.2.4. *Accessory Low Power Mode Test Period.* For equipment with an accessory low power mode, the accessory low power mode may be engaged for 6 hours, beginning 18 hours after the temperature stabilization requirements established in section 7.2.2.2 of ANSI/ASHRAE Standard 32.1–2022 have been achieved, and continuing until the end of the 24-hour test period. During the accessory low power mode test, operate the refrigerated bottled or canned beverage vending machine with the lowest energy-consuming lighting and control settings that constitute an accessory low power mode. The specification and tolerances for integrated average temperature in Table 2 of ANSI/ASHRAE Standard 32.1–2022 still apply, and any refrigeration low power mode must not be engaged. Provide, if necessary, any physical stimuli or other input to the machine needed to prevent automatic activation of refrigeration low power modes during the accessory low power mode test period.

2.2.5. *Accessories.* Unless specified otherwise in this appendix or ANSI/ASHRAE Standard 32.1–2022, all standard components that would be used during normal operation of the basic model in the field and are necessary to provide sufficient functionality for cooling and vending products in field installations (*i.e.,* product inventory, temperature management, product merchandising (including, *e.g.,* lighting or signage), product selection, and product transport and delivery) shall be in place during testing and shall be set to the maximum energy-consuming setting if manually adjustable. Components not necessary for the inventory, temperature management, product merchandising (*e.g.,* lighting or signage), product selection, or product transport and delivery shall be de-energized. If systems not required for the primary functionality of the machine as stated in this section cannot be de-energized without preventing the operation of the machine, then they shall be placed in the lowest energy-consuming state. Components with controls that are permanently operational and cannot be adjusted by the machine operator shall be operated in their normal setting and consistent with the requirements of sections 2.2.3 and 2.2.4 of this appendix. The specific components and accessories listed in the subsequent sections shall be operated as stated during the test, except when controlled as part of a low power mode during the low power mode test period.

2.2.5.1. *Payment Mechanisms.* Refrigerated bottled or canned beverage vending machines shall be tested with no payment mechanism in place, the payment mechanism in place but de-energized, or the payment mechanism in place but set to the lowest energy-consuming state, if it cannot be de-energized. A default payment mechanism energy consumption value of 0.20 kWh/day shall be added to the primary rated energy consumption per day, as noted in section 2.3 of this appendix.

2.2.5.2. *Internal Lighting.* All lighting that is contained within or is part of the internal physical boundary of the refrigerated bottled or canned beverage vending machine, as

established by the top, bottom, and side panels of the equipment, shall be placed in its maximum energy-consuming state.

2.2.5.3. *External Customer Display Signs, Lights, and Digital Screens.* All external customer display signs, lights, and digital screens that are independent from the refrigeration or vending performance of the refrigerated bottled or canned beverage vending machine must be disconnected, disabled, or otherwise de-energized for the duration of testing. Customer display signs, lighting, and digital screens that are integrated into the beverage vending machine cabinet or controls such that they cannot be de-energized without disabling the refrigeration or vending functions of the refrigerated bottled or canned beverage vending machine or modifying the circuitry must be placed in external accessory standby mode, if available, or their lowest energy-consuming state. Digital displays that also serve a vending or money processing function must be placed in the lowest energy-consuming state that still allows the money processing feature to function.

2.2.5.4. *Anti-sweat or Other Electric Resistance Heaters.* Anti-sweat or other electric resistance heaters must be operational during the entirety of the test procedure. Units with a user-selectable setting must have the heaters energized and set to the most energy-consumptive position. Units featuring an automatic, non-user-adjustable controller that turns on or off based on environmental conditions must be operating in the automatic state. Units that are not shipped with a controller from the point of manufacture, but are intended to be used with a controller, must be equipped with an appropriate controller when tested.

2.2.5.5. *Condensate Pan Heaters and Pumps.* All electric resistance condensate heaters and condensate pumps must be installed and operational during the test. Prior to the start of the test, including the 24-hour period used to determine temperature stabilization prior to the start of the test period, as described in section 7.2.2.2 of ANSI/ASHRAE Standard 32.1–2022, the condensate pan must be dry. For the duration of the test, including the 24-hour time period necessary for temperature stabilization, allow any condensate moisture generated to accumulate in the pan. Do not manually add or remove water from the condensate pan at any time during the test. Any automatic controls that initiate the operation of the condensate pan heater or pump based on water level or ambient conditions must be enabled and operated in the automatic setting.

2.2.5.6. *Illuminated Temperature Displays.* All illuminated temperature displays must be energized and operated during the test the same way they would be energized and operated during normal field operation, as recommended in manufacturer product literature, including manuals.

2.2.5.7. *Condenser Filters.* Remove any nonpermanent filters provided to prevent particulates from blocking a model's condenser coil.

2.2.5.8. *Security Covers.* Remove any devices used to secure the model from theft or tampering.

2.2.5.9. *General Purpose Outlets.* During the test, do not connect any external load to any general purpose outlets available on a unit.

2.2.5.10. *Crankcase Heaters and Other Electric Resistance Heaters for Cold Weather.* Crankcase heaters and other electric resistance heaters for cold weather must be operational during the test. If a control system, such as a thermostat or electronic controller, is used to modulate the operation of the heater, it must be activated during the test and operated in accordance with the manufacturer's instructions.

2.2.5.11. *Refrigerant Leak Mitigation Controls.* Any refrigerant leak mitigation controls that are independent from the refrigeration or vending performance of the refrigerated bottled or canned beverage vending machine must be disconnected, disabled, or otherwise de-energized for the duration of testing. Refrigerant leak mitigation controls that are integrated into the refrigerated bottled or canned beverage vending machine cabinet or controls such that they cannot be de-energized without disabling the refrigeration or vending functions of the refrigerated bottled or canned beverage vending machine or modifying the circuitry must be placed in external accessory standby mode, if available, or their lowest energy-consuming state.

2.3. *Determination of Daily Energy Consumption.* The daily energy consumption shall be equal to the primary rated energy consumption per day (ED), in kWh, determined in accordance with the calculation procedure in section 7.2.3.1, ''Calculation of Daily Energy Consumption,'' of ANSI/ASHRAE Standard 32.1–2022 plus the default payment mechanism energy consumption value from section 2.2.5.1 of this appendix, if applicable. In section 7.2.3.1 of ANSI/ASHRAE Standard 32.1–2022, the energy consumed during the test shall be the energy measured during the vending mode test period and accessory low power mode test period, as specified in sections 2.2.3 and 2.2.4 of this appendix, as applicable.

2.3.1. *Refrigeration Low Power Mode.* For refrigerated bottled or canned beverage vending machines with a refrigeration low power mode, multiply the value determined in section 2.3 of this appendix by 0.97 to determine the daily energy consumption of the unit tested. For refrigerated bottled or canned beverage vending machines without a refrigeration low power mode, the value determined in section 2.3 of this appendix is the daily energy consumption of the unit tested.

2.3.1.1. *Refrigeration Low Power Mode Validation Test Method.* This test method is not required for the certification of refrigerated bottled or canned beverage vending machines. To verify the existence of a refrigeration low power mode, initiate the refrigeration low power mode in accordance with manufacturer instructions contained in product literature and manuals, after completion of the 6-hour low power mode test period. Continue recording all the data specified in section 7.2.2.3 of ANSI/ASHRAE Standard 32.1–2022 until existence of a refrigeration low power mode has been confirmed or denied. The refrigerated bottled or canned beverage vending machine shall be deemed to have a refrigeration low power mode if either:

(a) The following three requirements have been satisfied:

(1) The instantaneous average next-to-vend beverage temperature must reach at least 4 °F above the integrated average temperature or lowest application product temperature, as applicable, within 6 hours.

(2) The instantaneous average next-to-vend beverage temperature must be maintained at least 4 °F above the integrated average temperature or lowest application product temperature, as applicable, for at least 1 hour.

(3) After the instantaneous average next-to-vend beverage temperature is maintained at or above 4 °F above the integrated average temperature or lowest application product temperature, as applicable, for at least 1 hour, the refrigerated beverage vending machine must return to the specified integrated average temperature or lowest application product temperature, as applicable, automatically without direct physical intervention.

(b) The compressor does not cycle on for the entire 6-hour period, in which case the instantaneous average beverage temperature does not have to reach 4 °F above the integrated average temperature or lowest application product temperature, as applicable, but, the equipment must still automatically return to the integrated average temperature or lowest application product temperature, as applicable, after the 6-hour period without direct physical intervention.

2.3.2. *Calculations and Rounding.* In all cases, the daily energy consumption must be calculated with raw measured values and the final result rounded to units of 0.01 kWh/day.

3. *Determination of Refrigeration Volume and Surface Area.*

3.1. *Refrigerated Volume.* Determine the ''refrigerated volume'' of refrigerated bottled or canned beverage vending machines in accordance with section 5.3, ''Refrigerated Volume,'' and Appendix C, ''Measurement of Volume,'' of ANSI/ASHRAE Standard 32.1–2022 including the referenced methodology in section 4, ''Method for Computing Refrigerated Volume of Refrigerators, Refrigerator-Freezer, Wine Chillers, and Freezers,'' of AHAM HRF–1–2016. For combination vending machines, the ''refrigerated volume'' does not include any non-refrigerated compartment(s).

3.2. *Determination of Surface Area.* (*Note:* This section is not required for the certification of refrigerated bottled or canned beverage vending machines.) Determine the surface area of each beverage vending machine as the length multiplied by the height of outermost surface of the beverage vending machine cabinet, measured from edge to edge excluding any legs or other protrusions that extend beyond the dimensions of the primary cabinet. Determine the transparent and non-transparent areas on each side of a beverage vending machine as the total surface area of material that is transparent or is not transparent, respectively.

[FR Doc. 2023–09036 Filed 5–3–23; 8:45 am]

BILLING CODE 6450–01–P

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1261

[Docket No. CPSC–2023–0015]

Safety Standard for Clothing Storage Units

AGENCY: Consumer Product Safety Commission.

ACTION: Direct final rule.

SUMMARY: In November 2022, the U.S. Consumer Product Safety Commission published a consumer product safety standard for clothing storage units (CSUs) to protect children from tip-over-related death or injury, with an effective date of May 24, 2023. In December 2022, the President signed into law the STURDY legislation, which requires CPSC to either develop and promulgate a new consumer product safety standard for CSUs that meets certain requirements specified in STURDY or determine that a voluntary standard exists that meets STURDY's requirements. If the Commission determines that a timely issued voluntary standard satisfies STURDY's criteria, then STURDY requires the Commission to promulgate a final consumer product safety standard that adopts the applicable performance requirements of the voluntary standard, to supersede any existing CSU rule. On April 19, 2023, the Commission determined that ASTM F2057–23, Standard Safety Specification for Clothing Storage Units, is a voluntary standard that meets the requirements of STURDY. In light of that determination, this direct final rule adopts the requirements of ASTM F2057–23 as required by STURDY. Because STURDY provides that adoption of the ASTM standard will supersede CPSC's current rule, the current CSU rule, which was added in a final rule published on November 25, 2022, is stayed and will not take effect.

DATES:

Effective date: The rule is effective September 1, 2023, unless the Commission receives a significant adverse comment by June 5, 2023. If the Commission receives such a comment, it will publish a document in the **Federal Register**, withdrawing this direct final rule before its effective date.

Incorporation by reference: The incorporation by reference of the publication listed in this rule is approved by the Director of the Federal Register as of September 1, 2023.

Stay and delay of effective date: The CSU rule promulgated as 16 CFR part 1261 in the final rule published at 87 FR 72598 on November 25, 2022, is stayed from May 4, 2023, through September 1, 2023, and the effective date of amendatory instruction 3 (adding 16 CFR part 1261) at 87 FR 72598 is delayed from May 24, 2023, to September 1, 2023.

ADDRESSES: You can submit comments, identified by Docket No. CPSC–2023–0015, by any of the following methods:

Electronic Submissions: Submit electronic comments to the Federal eRulemaking Portal at: *https://www.regulations.gov.* Follow the instructions for submitting comments. CPSC typically does not accept comments submitted by electronic mail (email), except as described below. CPSC encourages you to submit electronic comments by using the Federal eRulemaking Portal.

Mail/Hand Delivery/Courier/Confidential Written Submissions: Submit comments by mail, hand delivery, or courier to: Office of the Secretary, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; telephone: (301) 504–7479. If you wish to submit confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public, you may submit such comments by mail, hand delivery, or courier, or you may email them to: *cpsc-os@cpsc.gov.*

Instructions: All submissions must include the agency name and docket number. CPSC may post all comments without change, including any personal identifiers, contact information, or other personal information provided, to: *https://www.regulations.gov.* Do not submit through this website: confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public. If you wish to submit such information, please submit it according to the instructions for mail/hand delivery/courier/confidential written submissions.

Docket: For access to the docket to read background documents or comments received, go to: *https://www.regulations.gov,* and insert the docket number, CPSC–2023–0015, into the ''Search'' box, and follow the prompts.

FOR FURTHER INFORMATION CONTACT: Will Cusey, Small Business Ombudsman, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; telephone (301) 504–7945 or (888) 531–9070; email: *sbo@cpsc.gov.*

SUPPLEMENTARY INFORMATION:

I. Background and Statutory Authority

On November 25, 2022, the Commission published a consumer product safety standard to protect children from tip-over-related death or injury from CSUs (the current CSU rule), with an effective date of May 24, 2023. 87 FR 72598.

On December 29, 2022, President Biden signed STURDY into law. Public Law 117–328, 136 Stat. 4459, Div. BB, tit. II, sec. 201. STURDY provides that the Commission must assess whether ''a voluntary standard exists that meets'' the performance and warning requirements in the statute. STURDY sec. 201(d)(1). Specifically, the standard must protect children from tip-over-related death or injury with ''tests that simulate the weight of children up to 60 pounds,'' ''tests that simulate real-world use and account for impacts on clothing storage unit stability that may result from placement on carpeted surfaces, drawers with items in them, multiple open drawers, and dynamic force,'' ''testing of all clothing storage units, including those 27 inches and above in height,'' and warnings. STURDY sec. 201(c)(2).

If the Commission determines that a voluntary standard exists that was published not later than 60 days after STURDY's enactment, was developed by ASTM International or another similar voluntary standards organization, and meets STURDY's requirements for protecting children from tip-over-related death or injury, then the Commission must, within 90 days of its determination, ''promulgate a final consumer product safety standard'' that adopts the voluntary standard's relevant performance requirements. STURDY sec. 201(d). Those mandatory requirements ''will supersede any other existing standard for clothing storage units to protect children from tip-over related death or injury.'' STURDY sec. 201(d)(1).

If, however, no mandatory safety standard has been established for CSUs based on a voluntary standard, then by December 29, 2023, the Commission must ''promulgate a final consumer product safety standard for clothing storage units to protect children from tip-over-related death or injury.'' STURDY secs. 201(c)(1) and (c)(1)(B).

A consumer product safety standard promulgated under STURDY ''shall be treated as a consumer product safety rule promulgated under section 9 of the Consumer Product Safety Act (15 U.S.C. 2058).'' STURDY secs. 201(c)(4), (d)(1).[1]

[1] On April 19, 2023, the Commission voted (3–1) to publish this direct final rule: *https://*

Continued

II. Analysis of ASTM F2057–23

On February 1, 2023, ASTM International approved a revised version of its Standard Safety Specification for Clothing Storage Units, ASTM F2057–23.

A. Consultation With Stakeholders

Over more than five years, CPSC staff has collaborated extensively and received comments from manufacturers and retailers of CSUs, consumer groups, independent product safety experts, and other stakeholders, both within the ASTM standards-setting process and during CPSC's notice-and-comment rulemaking. This consultation continued through the development and balloting of ASTM F2057–23 and after the adoption of STURDY, including a broadly attended set of meetings hosted at CPSC's laboratory in January 2023.

Following ASTM's adoption of ASTM F2057–23, the Commission received recommendations that it determine that ASTM F2057–23 meets the requirements of STURDY. On February 7, 2023, Parents Against Tip-overs (PAT) and the American Home Furnishings Alliance (AHFA) jointly sent a letter to the Commission, in which they made a ''request for prompt agency action to review and consider F2057–23 as a mandatory product safety standard for clothing storage furniture.'' Attachment A to the Staff Briefing Package.[2] PAT and AHFA asserted that the updated standard ''meets the specific requirements of the Act'' because:

- It includes performance tests that simulate ''real-world'' use of clothing storage furniture;
- It includes performance tests that account for the impact of carpeted flooring on CSU stability, as well as the impact of ''loaded'' drawers, multiple open drawers, and the dynamic force of a child climbing or playing on the unit; and,
- The performance tests simulate the weight of children up to 60 pounds and apply to all clothing storage units 27 inches and above in height.

PAT and AHFA also cited both STURDY and ASTM F2057–23 as ''the result of an extraordinary collaborative effort between parents, industry, consumer advocates and child safety experts,'' that ''achieved rare bipartisan backing in Congress.''

On February 20, 2023, PAT submitted a second letter to urge ''acceptance of ASTM F2057–23 as the final consumer product safety standard for CSUs, according to the guidance provided under The STURDY Act.'' Attachment B to the Staff Briefing Package. PAT stated in that letter that ''[t]he tip-over problem has gone unresolved for far too long, and adopting the new ASTM standard is the solution that will result in much more stable CSUs'' than have historically been sold, and thereby ''save lives.'' In addition, PAT reiterated its assertion that ASTM F2057–23 was designed to and does meet the requirements of STURDY.

On March 3, 2023, Donald Mays, an independent product safety expert, sent the Commission an assessment of the ASTM standard. Mr. Mays stated that he analyzed the ASTM standard and the requirements of STURDY and concluded that the Commission should ''adopt ASTM F2057–23 and incorporate that standard by reference in their rule.'' Attachment C to the Staff Briefing Package. On March 6, 2023, Kids in Danger and Consumer Reports jointly sent a letter to the Commission in which they similarly ''urge[d] the Commission to promulgate a final consumer product safety standard under the STURDY Act . . . that adopts [ASTM F2057–23's] performance requirements as mandatory.'' Attachment D to the Staff Briefing Package. Also on March 6, 2023, the Home Furnishings Association (HFA), which stated that it represents 1,550 members and more than 8,000 storefronts across the country, wrote to the Commission urging adoption of ASTM F2057–23. HFA stated, ''We strongly believe that the revised ASTM 2057–2023 safety standard for clothing storage units meets the criteria outlined in the STURDY Act and must be adopted by the CPSC as the federal Safety Standard. It achieves everyone's goals of protecting children.'' Attachment E to the Staff Briefing Package.

B. Staff Assessment of the Voluntary Standard

Staff assessed the voluntary standard in a Staff Briefing Package. Staff noted that STURDY defines a clothing storage unit as ''any free-standing furniture item manufactured in the United States or imported for use in the United States that is intended for the storage of clothing, typical of bedroom furniture.'' STURDY sec. 201(a). STURDY also provides, however, that CPSC ''shall specify the types of furniture items within the scope of subsection (a) as part of a standard promulgated under [STURDY] based on tip-over data as reasonably necessary to protect children up to 72 months of age.'' STURDY sec. 201(b). For a standard to satisfy the requirements of STURDY, all types of clothing storage units specified by CPSC, ''including those 27 inches and above in height,'' must be tested. STURDY sec. 201(c)(2)(C).

ASTM F2057–23 applies to ''free-standing clothing storage units, including but not limited to chests, chests of drawers, drawer chests, armoires, [chifforobes], bureaus, door chests, and dressers, which are 27 in. (686 mm) or greater in height, 30 lb (13.6 kg) or greater in mass, and contain 3.2 ft^3 (90.6 dm^3) or greater of enclosed storage volume.'' ASTM F2057–23 sec. 1.1. The standard ''does not cover shelving units, such as bookcases or entertainment furniture, office furniture, dining room furniture, jewelry armoires, underbed drawer storage units, occasional/accent furniture not intended for bedroom use, laundry storage/sorting units, or built-in units intended to be permanently attached to the building, nor does it cover 'Clothing Storage Chests' as defined in Consumer Safety Specification F2598.'' ASTM F2057–23 sec. 1.2.

Although the ASTM voluntary standard does not include all CSUs as defined in section 201(a) of STURDY, staff noted that STURDY contemplates that not all ''clothing storage units'' would be subject to a mandatory standard and gives CPSC the authority to limit ''the types of furniture items'' that are within the scope of the rule based on tip-over data. STURDY sec. 201(b). Indeed, STURDY specifies that covered CSUs are limited to those ''intended for the storage of clothing, typical of bedroom furniture,'' which staff noted could further support a finding that the ASTM standard's exclusion of types of furniture that are not free-standing, not intended for clothing storage, and/or not bedroom

www.cpsc.gov/s3fs-public/Meeting-Minutes-Implementation-of-STURDY-201d-Determination-Regarding-ASTM-F2057-23-and-Draft-Direct-Final-Rule.pdf?VersionId=rY0PyWa3BlDDKuarLMDyaZrvms9DKi9X. The Chair and Commissioners issued the following statements: *https://www.cpsc.gov/About-CPSC/Chairman/Alexander-Hoehn-Saric/Statement/Statement-of-Chair-Alexander-Hoehn-Saric-on-the-Commission%E2%80%99s-Favorable-Determination-on-ASTM-F2057-23-and-Adoption-of-a-Final-Clothing-Storage-Unit-Stability-Rule-Under-STURDY; https://www.cpsc.gov/About-CPSC/Commissioner/Peter-A-Feldman/Statement/Statement-of-Commissioner-Peter-A-Feldman-on-Sturdy-Act-Determination; https://www.cpsc.gov/About-CPSC/Commissioner/Richard-Trumka/Statement/CPSC-Makes-Grave-Error-Increasing-Children%E2%80%99s-Risk-Of-Death-From-Furniture-Tip-Over-And-Creating-Legal-Peril-For-Agency;* and *https://www.cpsc.gov/About-CPSC/Commissioner/Mary-T-Boyle/Statement/Commissioner-Mary-T-Boyle-Statement-on-Mandatory-Safety-Standards-for-Clothing-Storage-Units.*

[2] The Staff Briefing Package is available at *https://www.cpsc.gov/s3fs-public/Implementation ofSTURDY_201dDeterminationRegarding ASTMF2057_23andDraftDirect FinalRule.pdf?VersionId=sg.kGfSKse JHE9WZ5Clnla_JYKcSeH5Y.*

furniture meets the requirements of STURDY. STURDY sec. 201(a).

The ASTM standard excludes units weighing less than 30 pounds empty. The Commission has previously noted an absence of known incidents causing death or serious injury for CSUs that weigh less than 30 pounds empty (see 87 FR 72628, Table 1). Therefore, staff assessed that based on known tip-over data, the Commission could find that testing units of less than 30 pounds is not ''reasonably necessary'' to protect children from injury or death. STURDY sec. 201(b).

Similarly, staff noted that while there are data on nonfatal incidents associated with tip-overs of CSU having a storage volume less than 3.2 cubic feet, ASTM based this volume on the lowest known volume of a fatal incident-involved CSU with a height of 27 inches or above. Staff therefore concluded that the Commission could find that, based on tip-over data, testing units having a storage volume less than 3.2 cubic feet is not ''reasonably necessary'' to protect children from injury or death. STURDY sec. 201(b).

STURDY section 201(d)(2) establishes a checklist of requirements that a voluntary standard must meet to become a mandatory standard. The first requirement is that the standard ''protects children up to 72 months of age from tip-over-related death or injury.'' STURDY sec. 201(d)(2)(A). Section 7.1 of the ASTM standard states: ''The test methods in this safety specification are intended to simulate the reaction of a clothing storage unit on carpet, loaded drawers, multiple open drawers, and a dynamic force from possible interaction of a child up to 72 months.'' Staff therefore assessed that the Commission could conclude that the standard ''protects children up to 72 months of age from tip-over-related death or injury,'' as further described below.

Section 201(d)(2)(B) of STURDY requires that a voluntary standard must meet requirements described in subsection (c)(2). Subsection (c)(2) in turn requires:

- Tests that simulate the weight of children up to 60 pounds;
- Objective, repeatable, reproducible, and measurable tests, or series of tests, that simulate real-world use and account for impacts on clothing storage unit stability that may result from placement on carpeted surfaces, drawers with items in them, multiple open drawers, and dynamic force;
- Testing of all clothing storage units as specified by the Commission, including those 27 inches and above in height; and
- Warning requirements based on ASTM F2057–19, or its successor at the time of STURDY's enactment, provided that the Commission may strengthen the warning requirements of ASTM F2057–19 or its successor if reasonably necessary to protect children from tip-over-related death or injury.

Staff assessed that the Commission could find that the ASTM standard includes tests that simulate the weight of children up to 60 pounds. Staff noted that STURDY appears to use 72 months and 60 pounds interchangeably; this, and the structure of STURDY, suggest that Congress considered 60 pounds a representative weight for a 72-month-old child. According to the 2000 Centers for Disease Control Clinical Growth Charts, which ASTM members used as a reference for ASTM F2057–23, 60 pounds is the approximate weight of a 95th percentile 72-month-old child.

STURDY requires tests that simulate the weight of children up to 60 pounds, and ASTM F2057–23 has a set of three stability tests to simulate the capability of a child weighing up to 60 pounds interacting with a CSU. The first stability test, Section 9.2.1 Simulated Clothing Load, loads drawers with simulated clothing loads. The CSU must not tip over with all doors and extendible elements (movable load-bearing storage components including, but not limited to, drawers and pullout shelves) open. Staff assessed that it would be reasonable to conclude that a child weighing up to 60 pounds would be able to open loaded drawers and that the Commission could conclude that this is a test that simulates the weight of children up to 60 pounds.

The second stability test, Section 9.2.2 Simulated Horizontal Dynamic Force, applies a 10-pound horizontal force over a period of at least 5 seconds at a ''hand-hold'' not to exceed a 56-inch height, and then holds the force for at least 10 seconds. The Staff Briefing Package cites a study that found the elbow pull strength of children 2 to 5 years old to be in the range of 6.14 to 26.0 pounds. Staff assessed that the Commission could conclude that this second stability test simulates the pull force of children up to 60 pounds.

The third stability test, Section 9.2.3 Simulating a Reaction on Carpet with Child Weight, uses 60 pounds of weight placed on the edge of an open drawer or pull-out shelf, while the CSU is tilted forward using a 0.43 inch test block to simulate placement on a carpeted surface, with all doors and extendible elements open. Based on the requirements of STURDY, staff assessed that the Commission could conclude that this is a test that simulates the static weight of children up to 60 pounds.

STURDY also requires ''objective, repeatable, reproducible, and measurable tests or series of tests that simulate real-world use and account for impacts on clothing storage unit stability that may result from placement on carpeted surfaces, drawers with items in them, multiple open drawers, and dynamic force.'' STURDY sec. 201(c)(2)(B). Staff noted that the ASTM F2057–23 test methods describe the steps to take, specifications for test apparatus, load, dimension, and tolerances for dimensions and loads, all of which are consistent with accepted practices. Because all of these test methods are specified in the ASTM standard, staff assessed that the Commission could conclude that the tests in ASTM F2057–23 are objective, repeatable, reproducible, and measurable.

Staff assessed that the ASTM stability tests utilize tests or a series of tests that represent real-world conditions. For example, section 9.2.1 Simulated Clothing Load tests the CSU with multiple open and loaded drawers on a flat surface. Section 9.2.3 of ASTM 2057–23, described above, is a stability test that simulates placement on a carpeted surface with open drawers. The use of a 0.43-inch thick test block (as specified in section 8.2.3) is consistent with the carpet simulation in CPSC's final CSU rule. See 87 FR 72636. Staff assessed that the Commission could, therefore, conclude that ASTM F2057–23 includes a stability test that simulates interaction with a CSU on a carpeted surface, which is a real-world condition.

Section 9.2.1 of the ASTM standard, Simulated Clothing Load, is a test conducted on a hard, level, and flat test surface with extendible elements and doors open and, if 50 percent or more of the storage volume is extended, the unit is to be filled with a ''simulated clothing load.'' The fill weight in extendible elements is calculated using a density of 8.5 pounds per cubic foot of volume, which is the same density used by the Commission in its November 2022 rule. *See* 87 FR 72610–11. All extendible elements are opened and must remain open for 30 seconds without tip over. Based on this test, staff assessed that the Commission could conclude that ASTM F2057–23 includes a test that simulates drawers with items in them and multiple open drawers, which is another scenario reflecting real-world use.

STURDY section 201(c)(2)(D) requires warnings based on ASTM F2057–19 (the predecessor standard to ASTM F2057–

23). Many of the warning requirements in section 10 of ASTM F2057–23, Marking and Labeling, are substantively identical to those in the 2019 version. Product safety expert Donald Mays has opined that the ASTM F2057–23 warning requirements differ from the F2057–19 requirements by being ''more specific,'' adding requirements for conspicuous placement, and warning against defeating drawer interlocks. Mays Letter at 4. Therefore, staff assessed that the Commission could conclude that ASTM F2057–23 meets the warning requirements of STURDY.

Lastly, under STURDY section 201(d)(2)(C) and (D), a voluntary standard must be ''developed by ASTM International'' or another voluntary standards organization that the Commission deems appropriate, and such standard must be published not later than 60 days after STURDY's enactment, *i.e.,* by February 27, 2023. STURDY sec. 201(d)(2)(C) and (D). ASTM F2057–23, which ASTM International published on February 6, 2023, satisfies these requirements.

C. Commission Determination

Based on the Commission's assessment of ASTM F2057–23 and for the reasons stated in the Staff Briefing Package, on April 19, 2023, the Commission determined that ASTM F2057–23 meets the requirements of STURDY. Therefore, as required by STURDY, this direct final rule adopts the requirements of that voluntary standard as a consumer product safety standard. Because STURDY provides that adoption of the voluntary standard ''will supersede any other existing standard for clothing storage units,'' the current CSU rule would only be in effect for about two months before being superseded by this new standard. Therefore, the Commission finds good cause to stay the current CSU rule from May 4, 2023, through September 1, 2023, so that it will not take effect.

The Commission's determination to adopt ASTM F2057–23 is based on the specific provisions of that standard and the unique history of its adoption in conjunction with the STURDY legislation. The Commission does not anticipate approving through the standard-revision process of STURDY section 201(e) any changes to ASTM F2057–23 that would reduce the level of protection for children up to 72 months of age from tip-over-related death or injury. After December 2027, moreover, STURDY allows the Commission ''to modify the requirements of [an adopted voluntary] standard or to include additional provisions if the Commission makes a determination that such modifications or additions are reasonably necessary to protect children from tip-over-related death or injury.'' STURDY sec. 201(f)(1).

III. Incorporation by Reference

In accordance with regulations of the Office of the Federal Register (OFR), 1 CFR part 51, section II. of this preamble summarizes ASTM F2057–23. The standard is reasonably available to interested parties in several ways. Until the direct final rule takes effect, a read-only copy is available for viewing on ASTM's website at: *https://www.astm.org/CPSC.htm.* Once the rule takes effect, a read-only copy of the standard will be available for viewing on the ASTM website at: *https://www.astm.org/READINGLIBRARY.* Additionally, interested parties can purchase a copy of ASTM F2057–23 from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959 USA; phone: 610–832–9585; *www.astm.org.* Interested parties also can schedule an appointment to inspect a copy of the standard at CPSC's Office of the Secretary, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814, telephone: 301–504–7479; email: *cpsc-os@cpsc.gov.*

IV. Testing and Certification

Section 14(a) of the Consumer Product Safety Act (CPSA) includes requirements for certifying that children's products and non-children's products comply with applicable mandatory standards. 15 U.S.C. 2063(a). Section 14(a)(1) addresses required certifications for non-children's products, and sections 14(a)(2) and (a)(3) address certification requirements specific to children's products.

A ''children's product'' is a consumer product ''designed or intended primarily for children 12 years of age or younger.'' *Id.* 2052(a)(2). The following factors are relevant when determining whether a product is a children's product:

- Manufacturer statements about the intended use of the product, including a label on the product if such statement is reasonable;
- Whether the product is represented in its packaging, display, promotion, or advertising as appropriate for use by children 12 years of age or younger;
- Whether the product is commonly recognized by consumers as being intended for use by a child 12 years of age or younger; and
- The Age Determination Guidelines issued by CPSC staff in September 2002, available at *https://www.cpsc.gov/content/2002-Age-Determination-Guidelines,* and any successor to such guidelines.

Id. ''For use by children 12 years and younger'' generally means that children will interact physically with the product based on reasonably foreseeable use. 16 CFR 1200.2(a)(2). Children's products may be decorated or embellished with a children's theme, be sized for children, or be marketed to appeal primarily to children. *Id.* § 1200.2(d)(1).

This rule requires CSUs that are not children's products to meet the certification requirements under section 14(a)(1) of the CPSA and requires CSUs that are children's products to meet the certification requirements under section 14(a)(2) and (a)(3) of the CPSA. The Commission's requirements for certificates of compliance are codified at 16 CFR part 1110. Section 14(a)(1) of the CPSA requires every manufacturer (which includes importers) of a non-children's product that is subject to a consumer product safety rule under the CPSA or a similar rule, ban, standard, or regulation under any other law enforced by the Commission to certify that the product complies with all applicable CPSC-enforced requirements. 15 U.S.C. 2063(a)(1). Section 14(a)(2) of the CPSA requires the manufacturer or private labeler of a children's product that is subject to a children's product safety rule to certify that, based on a third-party conformity assessment body's testing, the product complies with the applicable children's product safety rule. *Id.* 2063(a)(2). Section 14(a) also requires the Commission to publish a notice of requirements (NOR) for a third-party conformity assessment body (*i.e.,* testing laboratory) to obtain accreditation to assess conformity with a children's product safety rule. *Id.* 2063(a)(3)(A). Because some CSUs are children's products, the rule is a children's product safety rule as applied to those products.

The Commission published a final rule, codified at 16 CFR part 1112, Requirements Pertaining to Third Party Conformity Assessment Bodies, which established requirements and criteria concerning testing laboratories. Part 1112 includes procedures for CPSC to accept a testing laboratory's accreditation and lists the children's product safety rules for which CPSC has published NORs. The stability standard for CSUs is on the list of children's product safety rules for which CPSC has issued an NOR. 87 FR 72598 (Nov. 25, 2022); 16 CFR 1112.15(b)(54). Testing laboratories that apply for CPSC acceptance to test CSUs that are children's products for compliance with the rule must meet the requirements in

part 1112. When a laboratory meets the requirements of a CPSC-accepted third party conformity assessment body, the laboratory can apply to CPSC to include 16 CFR part 1261, Safety Standard for Clothing Storage Units, in the laboratory's scope of accreditation listed on the CPSC website at *www.cpsc.gov/labsearch.*

The requirements of ASTM F2057–23 are sufficiently similar to the current CSU rule that firms approved to test to the current rule can also test to ASTM F2057–23. Therefore, the existing NOR will remain in place. CPSC-accepted third party labs are expected to update the scope of their accreditations to reflect the revised standard in the normal course of renewing their accreditations.

V. Direct Final Rule Process

The Commission is issuing this rule as a direct final rule. Although the Administrative Procedure Act (APA), 5 U.S.C. 551–559, generally requires agencies to provide notice of a rule and an opportunity for interested parties to comment on it, section 553 of the APA provides an exception when the agency ''for good cause finds'' that notice and comment are ''impracticable, unnecessary, or contrary to the public interest.'' *Id.* 553(b)(B).

The purpose of this direct final rule is to adopt the applicable performance requirements of ASTM F2057–23. STURDY requires that once the Commission has determined that ASTM F2057–23 ''exists'' and ''meets the requirements'' of STURDY section 201(d)(2), it must adopt the applicable performance requirements of ASTM F2037–23, which ''shall be treated as a consumer product safety rule promulgated under section 9 of the Consumer Product Safety Act.'' STURDY sec. 201(d)(1). Because the Commission made this determination on April 19, 2023, the adoption of ASTM F2057–23 as a mandatory standard is required by law, and public comments would not lead to substantive changes to the standard or to the effect of the standard as a consumer product safety rule. Under these circumstances, notice and comment are unnecessary.

In Recommendation 95–4, the Administrative Conference of the United States (ACUS) endorses direct final rulemaking as an appropriate procedure to expedite rules that are noncontroversial and that are not expected to generate significant adverse comments. *See* 60 FR 43108 (Aug. 18, 1995). ACUS recommends that agencies use the direct final rule process when they act under the ''unnecessary'' prong of the good cause exemption in 5 U.S.C. 553(b)(B). Consistent with the ACUS recommendation, the Commission is publishing this rule as a direct final rule, because CPSC does not expect any significant adverse comments.

If the Commission receives a significant adverse comment, the Commission will withdraw this direct final rule. In accordance with ACUS's recommendation, the Commission considers a significant adverse comment to be ''one where the commenter explains why the rule would be inappropriate,'' including an assertion undermining ''the rule's underlying premise or approach,'' or a showing that the rule ''would be ineffective or unacceptable without change.'' 60 FR 43108, 43111. Depending on the comment and other circumstances, the Commission may then incorporate the adverse comment into a subsequent direct final rule or publish a notice of proposed rulemaking, providing an opportunity for public comment.

VI. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA; 5 U.S.C. 601–612) generally requires agencies to review proposed and final rules for their potential economic impact on small entities, including small businesses, and prepare regulatory flexibility analyses. 5 U.S.C. 603, 604. The RFA applies to any rule that is subject to notice and comment procedures under section 553 of the APA. *Id.* As discussed in this preamble, the Commission has determined that notice and the opportunity to comment are unnecessary for this rule. Therefore, the RFA does not apply.

VII. Paperwork Reduction Act

The current CSU rule includes requirements for marking, labeling, and instructional literature that constitute a ''collection of information,'' as defined in the Paperwork Reduction Act (PRA; 44 U.S.C. 3501–3521). This revised mandatory standard contains similar warning and labeling requirements compared to the current rule, but does not require a hang tag. Therefore, this rule does not increase the burden of these requirements. The Commission took the steps required by the PRA for information collections when it adopted 16 CFR part 1261, including obtaining approval and a control number. Because the warning and labeling burden is similar and there is no increase in the information collection burden but only a reduction, the revision does not affect the information collection requirements or approval related to the standard.

VIII. Environmental Considerations

The Commission's regulations provide for a categorical exclusion from any requirement to prepare an environmental assessment or an environmental impact statement where they ''have little or no potential for affecting the human environment.'' 16 CFR 1021.5(c)(2). This rule falls within the categorical exclusion, so no environmental assessment or environmental impact statement is required.

IX. Preemption

Section 26(a) of the CPSA provides that where a consumer product safety standard is in effect and applies to a product, no state or political subdivision of a state may either establish or continue in effect a requirement dealing with the same risk of injury unless the state requirement is identical to the Federal standard. 15 U.S.C. 2075(a). Section 26(c) of the CPSA also provides that states or political subdivisions of states may apply to CPSC for an exemption from this preemption under certain circumstances. STURDY deems a rule issued under that Act to be a ''consumer product safety standard.'' Therefore, once this takes effect, it will preempt in accordance with section 26(a) of the CPSA.

X. Effective Date

Under STURDY, this rule ''shall take effect 120 days after the date of the promulgation of the rule, or such a later date as the Commission determines appropriate.'' Manufacturers of CSUs have been aware of new stability requirements since the current CSU rule was published in November 2022, and the instant rule is based on a voluntary standard published in February 2023. The Commission accordingly will make this rule effective 120 days after promulgation. Unless the Commission receives a significant adverse comment within 30 days of this direct final rule's publication, the rule will become effective on September 1, 2023. As a consumer product safety standard under the CPSA, this rule applies to CSUs manufactured after the effective date. 15 U.S.C. 2058(g)(1).

XI. Congressional Review Act

The Congressional Review Act (CRA; 5 U.S.C. 801–808) states that before a rule may take effect, the agency issuing the rule must submit the rule, and certain related information, to each House of Congress and the Comptroller General. 5 U.S.C. 801(a)(1). The CRA submission must indicate whether the rule is a ''major rule.'' The CRA states

that the Office of Information and Regulatory Affairs (OIRA) determines whether a rule qualifies as a ''major rule.''

Pursuant to the CRA, OIRA has determined that this rule is a ''major rule'' as defined in 5 U.S.C. 804(2). To comply with the CRA, CPSC will submit the required information to each House of Congress and the Comptroller General.

List of Subjects in 16 CFR Part 1261

Consumer protection, Imports, Incorporation by reference, Information, Labeling, Safety.

■ The Commission revises 16 CFR part 1261 to read as follows:

PART 1261—SAFETY STANDARD FOR CLOTHING STORAGE UNITS

Sec.
1261.1 Scope and purpose.
1261.2 Requirements for clothing storage units.

Authority: 15 U.S.C. 2058; Div. BB, tit. II, sec. 201, Pub. L. 117–328, 136 Stat. 4459.

§ 1261.1 Scope and purpose.

(a) *Scope and purpose.* This part, a consumer product safety standard, prescribes safety requirements for clothing storage units, as defined in paragraph (b) of this section. The requirements in this part are intended to protect children up to 72 months of age from tip-over-related death or injury.

(b) *Application.* Clothing storage unit means any free-standing furniture item manufactured in the United States or imported for use in the United States that is intended for the storage of clothing, typical of bedroom furniture. All clothing storage units that are manufactured after September 1, 2023, are subject to the requirements of this part.

§ 1261.2 Requirements for clothing storage units.

Each clothing storage unit that is subject to ASTM F2057–23, *Standard Safety Specification for Clothing Storage Units,* approved on February 1, 2023, shall comply with ASTM F2057–23. ASTM F2057–23 is incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552 and 1 CFR part 51. This material is available for inspection at the U.S. Consumer Product Safety Commission and at the National Archives and Records Administration (NARA). Contact the U.S. Consumer Product Safety Commission at the Office of the Secretary, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814, telephone (301) 504–7479, email: *cpsc-os@cpsc.gov.* 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.* A free, read-only copy of the standard is available for viewing on the ASTM website at *https://www.astm.org/READINGLIBRARY/.* You may also obtain a copy from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959; phone: (610) 832–9585; *www.astm.org.*

Alberta E. Mills,

Secretary, Consumer Product Safety Commission.

[FR Doc. 2023–08997 Filed 5–3–23; 8:45 am]

BILLING CODE 6355–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2023–0216]

RIN 1625–AA00

Safety Zone; Ohio River, Cincinnati, OH

AGENCY: Coast Guard, Department of Homeland Security (DHS).

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary safety zone for all navigable waters of the Ohio River from mile marker (MM) 487.0 to MM 489.0. The safety zone is needed to protect personnel, vessels, and the marine environment from potential hazards created by Duke Energy's Static Wire Crossing operation taking place on the Ohio River from MM 487.0 to MM 489.0. Entry of vessels or persons into this zone is prohibited unless specifically authorized by the Captain of the Port, Sector Ohio Valley.

DATES: This rule is effective without actual notice from May 4, 2023, through May 15, 2023. For the purposes of enforcement, actual notice will be used from May 1, 2023, until May 4, 2023.

ADDRESSES: To view documents mentioned in this preamble as being available in the docket, go to *https://www.regulations.gov,* type USCG–2023–0216 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 Petty Officer Thomas Harp, MSD Cincinnati, U.S. Coast Guard; telephone 513–921–9033, email *Thomas.L.Harp@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
COPT Captain of the Port Sector Ohio Valley
DHS Department of Homeland Security
FR Federal Register
MM Mile Marker
NPRM Notice of proposed rulemaking
§ Section
U.S.C. United States Code

II. Background Information and Regulatory History

The Coast Guard is issuing this temporary rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are ''impracticable, unnecessary, or contrary to the public interest.'' Under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule because it is impracticable. We must establish this regulation by May 1, 2023, and lack sufficient time to provide a reasonable comment period and then consider those comments before issuing this rule.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the **Federal Register**. Delaying the effective date of this rule would be impracticable and contrary to the public interest because immediate action is necessary to protect persons and property from the dangers associated with the static wire crossing operation.

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 Sector Ohio Valley (COTP) has determined that potential hazards associated with the Duke Energy Static Wire Crossing operation occurring from May 1, 2023, through May 15, 2023, will be a safety concern for all navigable waters on the Ohio River from MM 487.0 to MM 489.0. The purpose of this rule is to ensure the safety of life and vessels on these navigable waters before, during, and after the event.

IV. Discussion of the Rule

This rule establishes a safety zone from May 1, 2023, through May 15,

2023, between the hours of 7 a.m. through 5 p.m. each day, on the Ohio River between MM 487.0 through MM 489.0 for the duration of the Duke Energy Static Wire Crossing operation. Transit through and into this area is prohibited during periods of enforcement between May 1, 2023, through May 15, 2023. The periods of enforcement will be immediately prior to, during, and 30 minutes after any vessel movement and wire transfer operation. The Coast Guard was informed that the operations would take place between the hours of 7 a.m. through 5 p.m. only. A safety vessel will coordinate all vessel traffic during the enforcement periods. The COTP or a designated representative will inform the public through Broadcast Notice to Mariners (BNM), Local Notice to Mariners (LNM), or through other means of public notice at least 1 hour in advance of each enforcement period.

The duration of the zone is intended to protect personnel, vessels, and the marine environment in these navigable waters while the Duke Energy Static Wire Crossing operation is occurring. No vessel or person will permitted to enter the safety zone without obtaining permission from the COTP or a designated representative. A designated representative is a commissioned, warrant, or petty officer of the U.S. Coast Guard assigned to units under the operational control of Sector Ohio Valley. They may be contacted on VHF–FM Channel 16 or by telephone at 1–800–253–7465. Persons and vessels permitted to enter this regulated area must transit at their slowest safe speed and comply with all lawful directions issued by the COTP or the 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, duration, and time-of-day of the safety zone. This safety zone will be in place on a two mile stretch of the Ohio River between the hours of 7 a.m. through 5 p.m. only for 15 days. The Coast Guard will issue a Local Notice to Mariners via VHF–FM marine channel 16 about the temporary safety zone. This rule allows vessels to seek permission from the COTP or a designated representative to enter the safety 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 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 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 a safety zone that prohibits entry on a two mile stretch of the Ohio River between 7 a.m. through 5 p.m. for 15 days. 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, 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.T08–0216 to read as follows:

§ 165.T08–0216 Safety Zone; Ohio River, Cincinnati, OH.

(a) *Location.* All navigable waters of the Ohio River between mile marker (MM) 487.0 to MM 489.0 in Finney, OH.

(b) *Regulations.* (1) In accordance with the general regulations in § 165.23 of this part, entry into this zone is prohibited unless specifically authorized by the Captain of the Port Sector Ohio Valley (COTP) or a designated representative. Persons or vessels desiring to enter into or pass through the zone must request permission from the COTP or a designated representative. They may be contact on VHF–FM radio channel 16 or phone at 1–800–253–4765.

(2) Persons and vessels permitted to enter the safety zone listed in paragraph (a) of this section must transit at the slowest safe speed and comply with all lawful directions issued by the COTP or a designated representative.

(c) *Period of enforcement.* The temporary safety zone listed in paragraph (a) of this section will be subject to enforcement from May 1, 2023, through May 15, 2023, from 7 a.m. through 5 p.m., immediately before, during, and 30 minutes after each wire crossing evolution.

(d) *Informational broadcasts.* The COTP or a designated representative will inform the public through broadcast notice to mariners of the enforcement period of the temporary safety zone as well as any changes in the planned schedule.

Dated: April 17, 2023.

H.R. Mattern,

Captain, U.S. Coast Guard, Captain of the Port Sector Ohio Valley.

[FR Doc. 2023–09589 Filed 5–2–23; 11:15 am]

BILLING CODE 9110–04–P

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

36 CFR Parts 1224, 1225 and 1236

[FDMS No. NARA–20–0006; NARA–2022–066]

RIN 3095–AB99

Federal Records Management: Digitizing Permanent Records and Reviewing Records Schedules

AGENCY: National Archives and Records Administration (NARA).

ACTION: Final rule.

SUMMARY: The National Archives and Records Administration (NARA) is amending our records management regulations to add a subpart containing standards for digitizing permanent Federal records so that agencies may dispose of the source records, when appropriate and in accordance with the Federal Records Act amendments of 2014. NARA is also amending our records management regulations to add a subpart containing metadata requirements for transferring permanent digital records to the National Archives of the United States. Finally, NARA is making a revision to our records schedule review provisions to establish a requirement for agencies to review, every five years, all records schedules that are ten years old and older, based on the date NARA approved the schedule.

DATES: This rule is effective on June 5, 2023.

ADDRESSES: Regulatory and External Policy Program (MP); Suite 4100; National Archives and Records Administration; 8601 Adelphi Road; College Park, MD 20740–6001.

FOR FURTHER INFORMATION CONTACT: Edward Germino, Strategy and Performance Division, by email at *regulation_comments@nara.gov,* or by telephone at 301–837–3758. Contact *rmstandards@nara.gov* with any questions on records management and digitization.

SUPPLEMENTARY INFORMATION:

Background

NARA is amending 36 CFR chapter XII, subchapter B, part 1225, Scheduling Records, to set a timeframe for the required review of existing records schedules. The current regulations state that schedules should be reviewed ''regularly.'' This rulemaking clarifies the word ''regularly'' by establishing a timeframe for those periodic reviews. This is based upon a determination that many schedules have not been kept up-to-date or revised when needed. Therefore, NARA is revising the regulations to require that every five years agencies must review records schedules that are ten years old or older, based on the date NARA approved the schedule. Agencies will be required to complete their first review no later than June 5, 2028, which is five years after this rule becomes effective. Any actions to update schedules after the mandatory five-year review is completed will continue to be governed by other records management regulations within 36 CFR chapter XII, subchapter B and implementing NARA records management guidance.

In addition, NARA is amending 36 CFR part 1236, Electronic Records Management, by adding a new subpart that establishes standards for the digitization of permanent paper and photographic print records, including paper and photographs contained in mixed-media records. The standards in this rule apply retroactively to digitized permanent records that have not been transferred to the National Archives. In 2014, Public Law 113–187 amended the Federal Records Act at 44 U.S.C. 3302 to require NARA to issue standards for reproducing records digitally ''with a view to the disposal of the original records.'' The amendment applies to both temporary and permanent records.

This rulemaking covers only permanent records of the kinds listed above. NARA previously amended 36 CFR part 1236 to add standards for the digitization of temporary records, which constitute the majority of Federal records (RIN 3095–AB98, 84 FR 14265 (April 10, 2019), effective May 10, 2019). NARA plans to issue additional requirements for digitizing other specific media types in future revisions to the rule. In the interim, agencies should contact *rmstandards@nara.gov* for guidance regarding digitizing other types of permanent records.

Digitizing and Transferring Permanent Records

These digitization standards for permanent records ensure that agencies can use digital versions for the same business purposes as the source records and ensure that the digital records will be appropriate for preservation in NARA's archival holdings. NARA intends the regulation to be neutral about who performs the digitizing activities for each agency, meaning Federal staff or vendors can perform the activities.

This rule defines the requirements for agencies to digitize source records as a records management activity as required by the 2014 amendments to the Federal Records Act, drawing from principles within the Federal Agencies Digital Guidelines Initiative (FADGI) Technical Guidelines for Digitizing Cultural Heritage Materials Creation of Raster Image Files (2016), and from International Organization for Standardization (ISO) Technical Specifications (TS) and Technical Reports (TR); specifically ISO 19264–1:2021 Photography—Archiving systems—Imaging systems quality analysis—Part 1: Reflective originals (*https://www.iso.org/standard/79172.html*), and ISO/TR 13028:2010, Information and documentation—Implementation guidelines for digitization of records (*https://www.iso.org/standard/52391.html*). FADGI also describes many recommended best practices that agencies may use to supplement, but not supersede, applicable regulations and NARA implementing guidance. This rule also provides agencies with the guidance necessary to digitize and dispose of source permanent records. These technical standards apply to both unclassified and classified national security records.

When managing digitized records, agencies must comply with other records management requirements identified in 36 CFR chapter XII, subchapter B. For example, this rule does not address how to transfer digitized records or what methods of physical destruction apply to source records. In addition, though this rule applies to digitizing classified records, it does not address other standards specific to classified information, such as classified-specific metadata or acquiring secure equipment. These subjects are outside the scope of this regulation.

Proposed Rule and Public Comments

NARA published this rulemaking in the **Federal Register** as a proposed rule on December 1, 2020 (85 FR 77095) with a 60-day public comment period. NARA received sets of comments from 23 different individuals and groups with many signatories. Commenters included: professors; universities and larger academic groups; records and access organizations; digitizing experts, software developers, vendors, and contractors; Federal agencies; information security organizations; archival entities; and anonymous people.

Comments on 36 CFR Parts 1224 and 1225

NARA received some comments on the proposed revisions to 36 CFR parts 1224 and 1225, which primarily asked questions about when the five-year records schedule review cycle would begin, how it would be calculated, whether it includes the review alone or also any necessary actions flowing from the review, and suggestions for requiring advisory boards and expert consultations as part of each review. Another comment discussed the shift to ''big bucket and media neutral'' scheduling approaches, which are less granular and provide only very general descriptions of the records.

The new requirements state that every five years, agencies must review all records schedules that are ten years old and older, based on the date NARA approved the schedule. NARA believes that setting the time frame for these review cycles on a regular basis will lead to improvements to Federal records management operations. Agencies will be required to complete their first review five years after the effective date of this rulemaking.

NARA recognizes that there are different ways to approach the cyclical review requirement and we are leaving that up to individual agencies. For example, some agencies may want to annually review the schedules that are ten years old or older on a rotational basis that ensures they are all reviewed every five years, while others may want to review all applicable schedules in a single, comprehensive review every five years. An agency's approach will depend on multiple factors, including the complexity of the schedules, the number of schedules they have, and the frequency of organizational and mission changes, among others. For similar reasons, NARA is also leaving it up to agencies whether to use a fiscal or calendar year review cycle.

The reason NARA is adding a specific review cycle is to ensure agency records schedules are current and relevant for the nature and format of records the agency is actively creating and using. As a result, as long as agencies implement the review cycle and conduct it consistently, they have some options on the details of how they carry out such reviews. The five-year cycle applies only to the review requirement in these regulations. Requirements for submitting new schedules or requesting changes to existing ones are governed by other records management regulations within 36 CFR chapter XII, subchapter B and by implementing NARA records management guidance.

NARA is not planning to request authority from Congress or the White House to create advisory boards for the scheduling process. However, we have been working to improve how the public can participate in the scheduling process. NARA created a new web page to explain how the public can engage in the process at *https://www.archives.gov/records-mgmt/public* and a YouTube video to explain the scheduling process at *https://youtu.be/iClMFzmwqLc.* NARA also changed our public comment processes in 2019 to increase the number of places where the public can find and view open schedules and to provide easier ways to comment. NARA previously published a notice in the **Federal Register** from which commenters would need to reach out to us for a copy of the schedule, start a schedule review period, and then provide any comments back to us by email. In 2019, we also started posting the schedules in a docket on regulations.gov and people have been able to comment on them directly from there. NARA takes public comments very seriously and has made changes to final schedules based on public input, and refined the public notice and comment processes based on such feedback. Although NARA is not planning to establish advisory boards, during the records appraisal process our staff consults widely with subject matter experts within agencies, including records officers and their staffs, legal counsel, information technology officials, and the program staff that create or maintain the records. They participate in the decision-making that occurs during both the agency's proposal development stage and our review and approval stage.

With the significant increase in the volume of records and information in the Federal Government, agencies have reported that flexible schedules ease the implementation of digital recordkeeping. Our experience over the past decade confirms that position. In 2021, we published an assessment report from NARA's Records Management Oversight and Reporting program on ''big bucket schedule

implementation.'' The report is on NARA's website at *https://www.archives.gov/files/records-mgmt/resources/big-bucket-schedule-implementation-report.pdf.* The report contains recommendations for NARA and for agencies, and we will continue to work on improving the big bucket scheduling guidance and agency implementation.

Comments on 36 CFR Part 1236

The comments on the new standards for digitizing permanent records in 36 CFR part 1236 covered a wide range of broad records management and oversight topics as well as specific technical topics:

Organization and Clarity

An overarching comment suggested that the regulation be simplified in structure and clarified in substance. NARA revised this part to make the requirements as straightforward as possible while still capturing the necessary level of detail. See edits to § 1236.42. For example, we consolidated all documentation requirements found in different sections into one comprehensive section.

Some commenters said that some technical terms were not always clear and additional definitions were needed. Most of the definitions can be found in the FADGI glossary *https://www.digitizationguidelines.gov/glossary.php.* NARA added definitions for several technical terms.

Oversight and Destroying Source Records

Many commenters were concerned about whether NARA would exercise oversight of agency digitization projects, and to what degree. The commenters stressed the importance of preserving source records for legal, evidentiary, and other purposes. They expressed concerns about whether there would be any check on agencies being permitted to destroy source records after digitizing them. They expressed concern that, without oversight, the likelihood that agencies would properly follow the requirements for digitizing before they destroy permanent records ''is negligible'' because they already do not properly follow existing regulations. They also expressed concern that agencies would not have enough funds to digitize properly and thus might cut corners and digitize in the cheapest and fastest way possible, rather than being concerned about longer-term archival needs. Other commenters suggested NARA include expertise from organizations such as the National Academy of Sciences in developing the digitization standards.

NARA is issuing these regulations to meet a statutory requirement. The 2014 amendments to the Federal Records Act required the Archivist of the United States to promulgate regulations that contain standards for digitizing with a view to disposing of source records.

In 2019, the Office of Management and Budget (OMB) and NARA issued OMB Memorandum M–19–21, *Transition to Electronic Records,* stating, ''The Federal Government spends hundreds of millions of taxpayer dollars and thousands of hours annually to create, use, and store Federal records in analog (paper and other non-digital) formats. Maintaining large volumes of analog records requires dedicated resources, management attention, and security investments that should be applied to more effectively managing digital records. The processes that create analog records increase burden on citizens by requiring them to conduct business with the Government in person or by mail, rather than online, and trap valuable Federal data in paper records where it can only be extracted manually and at great expense.'' Digitizing and destroying source records is part of that transformation process.

These regulations apply to paper and photographic print records that have not yet been transferred to NARA or stored at a Federal Records Center. In addition to developing the regulatory standards, NARA is also implementing oversight actions. Since 2011, we have increased our capability to conduct records management inspections of all agencies that fall under the Federal Records Act by expanding NARA's records management oversight program. This program performs inspections, assessments, and other related oversight activities. Digital records management, including digitization efforts, is included in these efforts. Agencies that are inspected are also required to create ''plans of corrective action'' related to any findings and recommendations and to submit progress reports to NARA until all actions have been taken. Agencies are also required to provide information about their digitization projects as part of the annual records management self-reporting cycle. For more information about NARA's oversight program, please see our website at *https://www.archives.gov/records-mgmt.*

Although NARA is implementing oversight actions as mentioned above, we will not be conducting direct oversight of all digitization projects in all agencies, nor will we require agencies to share project management and quality management plans with us for approval before beginning a digitization project. NARA will add compliance with these regulations alongside the existing regulations to our inspections, assessments, and other oversight activities. NARA believes that these regulations establish requirements for agencies that will sufficiently increase oversight and quality assurance.

These regulations are clear about the standards agencies must follow and meet. Agencies that do not meet these standards do not have the authority to dispose of the source records. NARA applied its experience with conversion to microfilm when developing these standards. As a result, we have required regular checks of the imaging equipment, precise calibration, and diligent quality control efforts to address many of the lessons of the microfilm era. NARA is confident the new standards contained in this rule will protect the records as they are transformed from analog to digital form. NARA will also communicate clearly that ''choosing quick-and-cheap digitization processes'' could lead to poor quality digital records that do not meet the agency's business needs or NARA's archival needs.

Section 1236.56 of these regulations also establishes the validation requirements agencies must fulfill. Agencies must not dispose of the source records until they validate that they have followed the requirements in other sections of the regulation for digitization and quality control (among other required assessments during a given digitization project). Once validated, the agency must have an applicable records schedule that addresses disposing of the source records after they have been digitized. If the agency validates that its digitization actions meet these new standards, it will be able to use a General Records Schedule as authority to dispose of the source records.

NARA believes the detailed level of information and the quality assessments and validating requirements in these regulations, as well as implementing guidance products NARA is preparing to issue and our other oversight and inspections, will be sufficient to allow agencies and NARA to jointly conduct required oversight. NARA believes these products will also help other oversight-related organizations, such as inspectors general or chief information security officers, to review and provide oversight to agency programs.

However, we also recognize that sometimes source records have intrinsic value and the very paper itself is a physical object that needs to be

preserved as part of our nation's history. NARA Bulletin 2020–01, *Guidance on OMB/NARA Memorandum Transition to Electronic Records (M–19–21),* provides guidance to agencies on how to request an exception to the upcoming digital records goals and deadlines after which we will accept only digital records. The exception process offers a way for some paper records to continue to become part of the National Archives in their original paper form.

NARA is a leader in archival science and the preservation of records within the Federal Government, and has experts on staff to advise in the creation and preservation of digitized records. NARA regularly consults with the international records management and archival communities as well as with other non-governmental, cultural, and educational institutions on important topics related to records management, including digitization.

Previously Digitized Records

We also received many questions about records that agencies digitized before these regulations were issued but which have not yet been transferred to the National Archives of the United States and don't meet the standards in these new regulations.

The standards in these regulations apply to any paper and photographic print records that will be transferred to the National Archives after the deadlines established in OMB/NARA Memoranda. That includes any previously digitized permanent records still in agency control. If those digital versions do not meet the standards in these regulations, the agencies have other options. The first option is to send the paper versions of the previously digitized records to a NARA Federal Records Center by the upcoming digital records deadlines if they aren't scheduled for transfer to the National Archives before then. With this option, agencies would pay for the storage until the records' transfer date to the National Archives' legal custody, but would not have to re-digitize the records to the appropriate standards. Once the records transfer to the National Archives on the scheduled date, we will assume responsibility for digitizing the records for archival access.

The second option is to request an exception to the goals and deadlines established in OMB/NARA Memoranda, and as outlined in NARA guidance, discussed in the oversight comments section above.

The third option is to work with us to update relevant agency-specific records schedules so they address the previously digitized records and provide authority to transfer the digitized records to NARA and destroy the source records. This option would not be available in all cases and will depend in part on the quality and other aspects of the digitized records. NARA recognizes that agencies have been scanning permanent records for decades and that such records will, in many cases, not meet all the standards in this regulation. However, many may meet enough of the requirements for the digitized versions to function effectively as archival records, depending on the kind of records they are. The goal is for agencies, NARA, and the public to have confidence in the previously digitized records and the processes used to digitize them, and to develop a clear understanding of what we will be accepting at the time of transfer. NARA is developing guidance to help agencies update records schedules for this purpose and will work individually with agencies that have previously digitized records. Any records schedules revised for this purpose will be published in the **Federal Register** for public review and comment.

A fourth option is that if digital records were printed and filed according to agency records management practices and agencies can find the source records—the digital versions—that were used to print and file, then agencies may be able to transfer those original digital versions instead of scanning the paper to re-create digitized versions.

A fifth option is for agencies to re-digitize their source records according to 36 CFR part 1236.

Some agencies might find a combination of these options will be needed to address any issues with previously scanned paper records.

Delayed Transfers, Access, and NARA Resources

Some commenters expressed a belief that our decision to accept only digital records after the upcoming digital records deadlines will lead to delays in agencies transferring records to the National Archives. They were concerned that NARA's infrastructure and staffing would not be sufficient to accession and then make available such huge volumes of digital records, meaning these regulations could effectively shut down access to records. Instead of delays, we believe agencies will transfer overdue permanent paper records rather than pay to digitize them. OMB/NARA Memo M–19–21 states that agencies can transfer permanent paper records to NARA's Federal Records Centers Program before the upcoming digital records deadlines, and will then not be responsible for digitizing those records. NARA crafted several policies that encourage agencies to transfer overdue permanent records to the National Archives, including not accepting paper records after the deadlines, requiring agencies to stop storing inactive records in agency-operated records centers, and issuing regulations with digitization standards for temporary and permanent records.

NARA agrees that resources are critical for NARA to successfully accomplish our mission. NARA invests in our employees, and in developing and improving our tools, automated processes, and IT infrastructure to accession digital records. NARA's decision to pivot to accessioning digital records is part of a strategy to better manage all records in our holdings. NARA does not think this decision will impede access to records, but instead will help us improve access to born digital and digitized records.

Image Quality and Quality Management

Some commenters noted that we adjusted the DICE target values for the L20 and 21 patches. The relaxed standards for this category are tailored to documents with no content to be captured in those measurement regions. NARA acknowledges that there is a distinction between large scale in terms of size and high speed in terms of time.

Some commenters questioned whether the digitization imaging standards are exacting enough to ensure that handwritten comments or embossed seals will be captured when the records are digitized. The image quality requirements in the regulation are based on FADGI and ISO specifications and define a minimum set of requirements to be met. NARA included instructions, based in part on suggested language from commenters, in 36 CFR 1236.50 to evaluate the characteristics of source records, including those with legibility issues or special characteristics, and to select the imaging specifications that best capture all the information.

Commenters also questioned how to determine the severity of image defects, such as noise, streaks, or dust, and the usability of the resulting image. The image analysis described in § 1236.46 is designed to detect most image defects using objective measurements. That section also includes visual inspection steps to identify defects that cannot be discovered automatically. The agency is responsible for determining the acceptability of subjective factors. The standards in § 1236.46 call for the agency to proactively correct errors due to malfunctioning or improperly

configured equipment or human error. If the agency affirms that they attempted all appropriate measures to minimize artifacts and defects, then they must determine whether the level of artifacts obscures information. Testing and good communications between quality management staff and project managers should enable the agency to address imaging defect issues prior to digitization and throughout any digitization project.

Some commenters questioned the accuracy of the values used for the technical parameters in the regulation. NARA updated the parameters to align with the most recent version of the FADGI guidelines.

NARA reorganized the Quality Management section to reflect suggestions to clarify who performs the various steps for quality management, assurance, control, and inspection. NARA further clarified what was to be inspected and whether to perform visual or automated inspection, and we also explained when to employ sampling ratios from 100% inspection requirements.

NARA revised § 1236.50 in response to requests to better explain what characteristics of records determine their suitability for either of the two imaging specifications.

Optical Character Recognition (OCR)

Commenters asked why the regulations do not require optical character recognition (OCR) scans of records during the digitization process. OCR accuracy can vary widely, and the results can require remedial actions to fix errors. Agencies are not required to OCR when they digitize records because NARA intends to OCR permanent records so that the results are consistent when searching NARA's catalog. However, these regulations do not prevent agencies from performing OCR to meet their own business needs.

File Formats

Some commenters suggested that we expand the versions of PDF/A to include newer versions such as PDF/A–4. NARA revised § 1236.48 to allow for newer versions of PDF/A but prohibited some new features. Some commenters asked that we allow the use of PDF/A–2 with lossy JPEG2000 compression for use with digitized photographs. NARA determined that our processing and description requirements are best served by having photographs digitized using raster image formats including TIFF, JPEG2000, and PNG. Some commenters pointed out the discrepancy between acceptable formats listed in the appendix to NARA Bulletin 2014–04 and those listed in this regulation. NARA will update the format tables in 2014–04 so that they are consistent with this regulation.

Some commenters pointed out that once saved, PDF/A does not allow metadata to be added or edited. NARA revised language to explain that agencies should develop workflows to produce digital images and capture required metadata so they can be packaged as digital records. This work should be completed before the creation of PDF/A files.

The commenters asked that JPEG, CCITT G3/G4, and other forms of lossy compression be included and suggested that we allow ''visually lossless,'' or lossy compression. NARA is not including CCITT G3 and G4 compression because these codecs are only appropriate for use with bitonal (black and white) color mode, which is not permitted. With regard to practitioners applying ''judicious'' lossy compression, we have updated the language in the regulation to allow agencies to apply visually lossless compression during digitization.

Color

Commenters recommended disallowing sRGB as an acceptable color option because it will result in less accurate color representation in the resultant digital records. NARA specifies five color spaces for agencies to choose from depending on the need to convey all information in the source record. sRGB is an acceptable color space for many records such as modern textual paper documents, but not for photographic prints. Color is not mandatory for all records, but the regulation requires that if the original includes color, the document must be scanned in color.

Protecting Against Loss

Some commenters asked whether there are safeguards in place to protect against losing digital records entirely if they are compromised or corrupted. They questioned what hash value or algorithm agencies should use to monitor for corruption or alteration; and the frequency, schedule, grouping, and other details of fixity checks. Under the existing regulations at 36 CFR 1236.10, agencies are required to ensure that records are authentic and free of corruption or alteration. While hash values are the industry standard for monitoring digital records, due to the number of algorithms in use, it is impractical for us to specify a single algorithm to be used by all agencies to comply with this regulation. NARA specifies requirements in § 1236.10 for ensuring that records created under this regulation remain authentic, and we will provide additional information in upcoming implementing guidance.

Agencies are already required by other records management regulations in 36 CFR chapter XII, subchapter B to maintain digital records, including protections against loss. *See, for example,* 36 CFR 1222.26, 1222.34, and 1236.14. Once agencies transfer permanent records to the National Archives, we maintain them in the Electronic Records Archives (ERA), which has sufficient management and preservation controls to protect against loss of the records. NARA's digital preservation strategy is posted on our website at *https://www.archives.gov/preservation/digital-preservation/strategy.*

Interfiled Photographic Prints and Paper

Another commenter explained that many agencies organize scans of multipage documents using PDF files and that textual records might have photo prints interfiled. The commenter stated that not including PDF/A–2 for scanned prints requires agencies to store scanned prints separately from textual records they were interfiled with, creating a higher risk of loss. While we did not add PDF/A–2 as a file format for photographic prints, we clarified language in § 1236.48 to make it clear that when there are interspersed files, specifically a mix of photographic prints and predominately textual records, the agency must scan the photographs according to requirements in § 1236.50 and then may convert the image files to PDF files.

Workflows

The commenters also raised concerns about workflows, stating that prohibiting reformatting, in general, interferes with acceptable workflows. NARA updated the language to make clear that agencies may develop workflows in which they capture images in one format and assemble them into another format for final output, such as saving image files together in a PDF/A file. However, they must not transcode, or interpolate (upsample) files anywhere in the workflow.

Metadata Concerns

Some commenters raised concerns about metadata requirements labeled ''mandatory if access restriction exists'' rather than ''mandatory if applicable''. They also raised concerns about access and use restrictions, such as why they are included and how they relate to court orders.

For any records subject to the access and use restrictions, agencies must populate the appropriate metadata labels so that the National Archives can manage the records appropriately. Court orders are one of the kinds of restrictions that might apply and would need to be reflected in the metadata. Our regulations at 36 CFR 1226.14 have long accounted for the possibility that a court might order that records be expunged, destroyed, or returned. In these situations, the existing regulations allow an agency to comply with the court order without fear of being in violation of the Federal Records Act. NARA expects that the court has considered all applicable laws when entering such orders and that they are necessary for the administration of justice. Agencies alert us to such a requirement, and other similar ones, by using the metadata labels for access and use restrictions. NARA revised § 1236.54 to provide better instructions for embedding metadata and how it should be structured and labeled, as well as to clarify metadata requirements.

Another commenter was concerned that the metadata requirements did not seem to include a way to disclose that the records are digitized versions of physical records that may have been destroyed. This could be important for evidentiary events, such as eDiscovery or FOIA. While there is not a metadata element that explicitly flags records this way, the descriptive metadata table does include the mandatory data elements ''source type'' and ''source dimensions,'' which indicate that the source record was recorded on paper.

The commenters questioned whether the provenance of particular records and file/office arrangement of the source records will be preserved or recorded during digitization. Provenance and file/office records arrangement are aspects of intellectual control and metadata and are addressed in §§ 1236.42 and 1236.44, as well as § 1236.54.

A commenter questioned why NARA requires metadata to be transferred as a CSV file. CSV is the metadata format required by NARA for digital records processing.

The commenters asked for clarifications on transfer metadata guidance. NARA added a new section to clarify that transfer metadata requirements apply to all records—analog, digitized, and born-digital.

Archival Concerns

Some commenters expressed concern that using improper equipment might damage source records. NARA added additional language in § 1236.50(c) making clear that agencies must use equipment capable of digitizing records without damaging them. Another commenter questioned how to document the required level of detail. NARA revised § 1236.44 to define the requirements that the Project Plan must identify physical characteristics that may influence the level of detail that must be captured. NARA also edited § 1236.50 and included more precise instructions in § 1236.42 directing agencies to evaluate the characteristics of source records and through testing and analysis, select the imaging specifications that best capture the information.

In addition, we received some comments about topics that are beyond the scope of these regulations and are addressed in other statutes, regulations, or guidance. These included questions about the specific equipment and processes for digitizing classified information, and about standards for archiving and transferring ''born-digital'' records to the National Archives. NARA included language to clarify the fact that agencies have additional requirements outside the scope of these regulations.

Vendor/GSA

Commenters raised concerns that FADGI-specific services do not currently appear on GSA Schedules and asked how NARA and GSA will manage vendors who offer these services. NARA will engage with GSA through NARA's Federal Electronic Records Modernization Initiative (FERMI) program to update the GSA Schedules for Document Conversion and work with GSA to create self-certification opportunities for vendors that offer document conversion or digitizing services.

Legal Authority

Some commenters questioned whether NARA exceeded its legal authority by stating that records will be accepted only in digital form. NARA has the legal authority to determine what file formats and media types it will accept for permanent records. When there are multiple versions of a record, it is appropriate to make choices about which version to preserve and which version to destroy. NARA considers digital records to be Federal records and will accept them in place of analog versions.

Regulatory Analysis

Executive Order 12866, Regulatory Planning and Review, and Executive Order 13563, Improving Regulation and Regulation Review

OMB has reviewed this rulemaking and determined it is not ''significant'' under section 3(f) of Executive Order 12866. It is not significant because it applies only to Federal agencies, updates the regulations due to a statutory requirement (to incorporate technological developments and to account for changing technology and agency practices), and is not establishing a new program. Although the proposed revisions change existing requirements and add new ones for agencies, the requirements are necessary to keep the existing regulations up-to-date, comply with the statute, and ensure agencies are preserving records for the United States.

Regulatory Flexibility Act (5 U.S.C. 601, et seq.)

This review requires an agency to prepare an initial regulatory flexibility analysis and to publish alongside the proposed rule. This requirement does not apply if the agency certifies that the rulemaking will not, if promulgated, have a significant economic impact on a substantial number of small entities (5 U.S.C. 603). NARA certifies, after review and analysis, that this rulemaking will not have a significant adverse economic impact on small entities.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501, et seq.)

The Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*) requires that agencies consider the impact of paperwork and other information collection burdens imposed on the public and, under the provisions of PRA section 3507(d), obtain approval from OMB for each collection of information they conduct, sponsor, or require through regulations. This rulemaking does not impose additional information collection requirements on the public that are subject to the Paperwork Reduction Act.

Executive Order 13132, Federalism

Executive Order (E.O.) 13132 requires agencies to ensure that state and local officials have the opportunity for meaningful and timely input when those agencies are developing regulatory policies that may have a substantial, direct effect on the states, on the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various

levels of government. If the effects of the rule on state and local governments are sufficiently substantial, the agency must prepare a Federal assessment to assist senior policymakers. This rulemaking will not have any effects on state and local governments within the meaning of the E.O. Therefore, no Federalism assessment is required.

Unfunded Mandates Reform Act (Sec. 202, Pub. L. 104–4; 2 U.S.C. 1532)

The Unfunded Mandates Reform Act requires that agencies determine whether any Federal mandate in the rulemaking may cause state, local, and tribal governments, in the aggregate, or cause the private sector to expend $100 million in any one year. NARA certifies that this rulemaking does not contain a Federal mandate that may result in such an expenditure.

List of Subjects

36 CFR Parts 1224 and 1225

Archives and records, Records management, Records schedules, Scheduling records.

36 CFR Part 1236

Archives and records, Digitization, Digitized records, Digitizing, Digital records, Metadata, Permanent records, Records management, Quality assurance, Quality control, Quality management, Transfers.

For the reasons discussed in the preamble, NARA amends 36 CFR parts 1224, 1225, and 1236 as follows:

PART 1224—RECORDS DISPOSITION PROGRAMS

■ 1. The authority citation for part 1224 continues to read as follows:

Authority: 44 U.S.C. 2111, 2904, 3102, and 3301.

■ 2. In § 1224.10, in paragraph (c), add a sentence at the end to read as follows:

§ 1224.10 What must agencies do to implement an effective records disposition program?

* * * * *

(c) * * * Every five years, agencies must review all records schedules that are ten years old and older, based on the date NARA approved the schedule, and in accordance with § 1225.22(a) of this subchapter.

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PART 1225—SCHEDULING RECORDS

■ 3. The authority citation for part 1225 continues to read as follows:

Authority: 44 U.S.C. 2111, 2904, 2905, 3102, and Chapter 33.

■ 4. Amend § 1225.22 by:
■ a. Revising the section heading;
■ b. Removing the introductory text;
■ c. Redesignating paragraphs (a) through (h) as paragraphs (b)(1) through (8);
■ d. Further redesignating newly redesignated paragraphs (b)(8)(1) through (4) as paragraphs (b)(8)(i) through (iv);
■ e. Adding new paragraph (a);
■ f. Adding paragraph (b) introductory text; and
■ g. Revising newly redesignated paragraph (b)(1).

The revisions and additions read as follows:

§ 1225.22 When must agencies reschedule or review their records schedules?

(a) Every five years, agencies must review all records schedules that are ten years old and older, based on the date that NARA approved the schedule. Agencies may also review their agency records schedules on a more frequent regular basis to determine if they remain accurate.

(b) Agencies must submit a new records schedule to NARA in the following situations:

(1) If an interagency reorganization reassigns functions to an existing department or agency, the gaining organization must submit a new records schedule to NARA within one year of the reorganization. Schedules approved for one department or independent agency do not apply to the records of other departments or agencies.

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PART 1236—ELECTRONIC RECORDS MANAGEMENT

■ 5. The authority citation for part 1236 continues to read as follows:

Authority: 44 U.S.C. 2904, 3101, 3102, 3105, 3301, 3302, and 3312.

■ 6. Amend § 1236.2 by:
■ a. Revising the section heading;
■ b. Adding in alphabetical order to paragraph (b) definitions for ''Administrative metadata'', ''Checksum'', ''Descriptive metadata'', ''Embedded metadata'', ''Intellectual control,'' ''Media'', ''Mixed-media files,'' ''Physical characteristics'', ''Physical control'', ''Project plan'', ''Quality assurance (QA)'', ''Quality control (QC)'', ''Quality management (QM)'', ''Technical metadata'', and ''Validating''.

The revision and additions read as follows:

§ 1236.2 Definitions that apply to this part.

* * * * *

(b) * * *

Administrative metadata are elements of information used to manage records and relate them to one another. Administrative metadata elements describe how a record was created, any access and use restrictions that apply to it, information about the record series to which it belongs, and the disposition schedule that identifies its retention period.

Checksum is a value that is computed on data and is used to authenticate information by indicating when a file has been corrupted or modified. This value is also called a ''hash value,'' ''hash code,'' ''digest,'' or simply ''hash.''

Descriptive metadata are elements of information that describe the records or set of records itself. They apply to both the source records and any versions produced through digitization. Descriptive metadata for individual source records include such elements as the title of a record, a description of its contents, its creator, and the date it was created. These elements support searching for and discovering records.

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Embedded metadata are textual components that exist alongside the content (usually binary data) within the file. Embedded metadata may be used to make self-describing digital files that contain administrative rights, and technical metadata and can be appropriately managed outside of a recordkeeping system.

Intellectual control is the information necessary to identify and understand the content and context of the records.

Media are the physical forms on which records are stored, such as paper, photographs, compact discs, DVDs, analog tapes, flash drives, local hard drives, or servers.

* * * * *

Mixed-media files are records in different forms of media. A file, when used in the phrase ''mixed-media file,'' is a group of records—regardless of location and type of media—that belong together or relate to a topic. For example, a mixed-media case file could be a box with paper notes, audio recordings of interviews, and a CD of photographs, along with physical evidence stored separately in an evidence locker. Records in a file may be in more than one media type because of how agencies create, maintain, and use records, shifts in technology, and the topic or activity involved.

Physical characteristics of source records include the media, the method that information is recorded, the physical condition of the material, and the smallest level of detail present. The

physical characteristics of records printed on paper include: the type of paper (office paper, Thermofax, photographic print); the type of printing (laser printed, fax printed, typewritten, half-toned, handwritten); appearance (color, inks, continuous tone or monochrome images); size, and other methods of conveying information (embossed seals, stamps). These traits determine the methods and equipment used to digitize records.

Physical control is having the information necessary to physically manage records. This includes knowing where the records are housed, whether any records are missing or stored separately, and the records' physical form (media types, the records' dimensions, and the physical characteristics).

Project plan is a document that identifies the records that are to be digitized, an estimate of their volume and of the media types that are present, the image quality parameters selected to capture necessary information, the date range of the records, a copy of the applicable agency records schedule(s); any indexes used to maintain intellectual and physical control; and a quality management (QM) section that describes quality assurance (QA) objectives, quality control (QC) procedures to identify and correct errors during digitization, and the QC reports that will be used to identify and remediate errors when detected.

Quality assurance (QA) refers to proactive QM activities focused on preventing defects by ensuring that a particular product or service achieves certain requirements or specifications. A QA program is heavily dependent on QC data to search for patterns and trends. QA activities also include controlled experiments, design reviews of digitization workflows, and system tests. QA programs can improve quality by creating plans and policies or by creating and conducting training.

Quality control (QC) refers to QM activities that examine products through inspection or testing to determine if they meet predetermined specifications. The purpose is to detect defects (deviations from predetermined requirements) in products or processes.

Quality management (QM) refers to the overall management functions and underlying activities that determine quality policies, objectives, and responsibilities, and that implement them through planning, control, assurance, and improvement methods within the quality system.

Technical metadata are elements of information that describe the properties of computer files, the hardware used to create them, and the parameters used by systems to render them. Technical metadata may include elements such as a file's byte size, file format and version, color encoding, and the type of equipment used to make the file (for example, camera name or scanner manufacturer).

* * * * *

Validating is the process of ensuring that the records meet the requirements of this part.

■ 7. Add subpart E to read as follows:

Subpart E—Digitizing Permanent Federal Records

Sec.
1236.40 Scope of this subpart.
1236.41 Definitions for this subpart.
1236.42 Records management requirements.
1236.44 Documenting digitization projects.
1236.46 Quality management requirements.
1236.48 File format requirements.
1236.50 Requirements for digitizing permanent paper and photographic print records.
1236.52 Requirements for digitizing permanent mixed-media records.
1236.54 Metadata requirements.
1236.56 Validating digitized records and disposition authorities.

Subpart E—Digitizing Permanent Federal Records

§ 1236.40 Scope of this subpart.

(a) This subpart establishes processes and requirements to ensure that agencies:

(1) Identify the records the agency will digitize in each project;

(2) Account for all records covered by the project, regardless of media type;

(3) Implement quality management techniques to verify equipment performance and monitor processes to detect and correct errors;

(4) Produce complete and accurate digitized records that the agency can use for all the same purposes as the source records; and

(5) Validate that the resulting digitized records meet the standards in this subpart.

(b) This subpart covers the standards and procedures agencies must apply when digitizing permanent paper records using reflective digitization techniques. Such records include most paper-based documents, regardless of size, such as modern textual documents, maps, posters, manuscripts, graphic arts prints (for example, lithographs or intaglio), drawings, bound volumes, and photographic prints. This subpart also covers any records that may be incorporated into mixed-media records.

(c) This subpart does not cover standards and procedures agencies must apply when digitizing permanent records using transmissive digitization techniques. Such records include photographic negatives, transparencies, aerial film, roll film, and micrographic and radiographic materials. In addition, this subpart does not cover digitizing records on dynamic media. Such records include motion picture film, video, and audio tapes.

(d) For guidance on digitizing out-of-scope media types or non-paper-based portions of mixed-media records, such as dynamic media, radiographic, negative or positive film, or other special media types, please contact the Records Management Policy and Standards Team by email at *rmstandards@nara.gov* or by phone at 301–837–1948.

(e) This subpart does not require that optical character recognition (OCR) be performed during digitization. However, these regulations do not prevent agencies from performing OCR to meet their business needs.

(f) This subpart does not address other applicable laws and regulations governing documents and digital files, including, but not limited to, proper handling of classified or controlled unclassified information (CUI) and compliance with 36 CFR part 1194 (section 508). Agencies should work with their legal counsel and other officials to ensure compliance with these and other applicable requirements.

(g) This subpart also does not address other business needs or legal constraints that may make it necessary for an agency to retain source records for a period of time after digitizing. Agencies should work with their legal counsel and other officials to determine whether such retention might be necessary because it relates to rights and interests, appeal rights, benefits, national security, litigation holds, or other similar reasons.

§ 1236.41 Definitions for this subpart.

In addition to the definitions contained in § 1220.18 of this subchapter and § 1236.2, the following definitions apply to this subpart:

Accuracy is the degree to which the information correctly describes the object or process being measured. It can be thought of in terms of how close a reading or average of readings is to a true or target value. Accuracy is a different measure than precision.

Adobe RGB is a red, green, blue color space developed to display on computer monitors most of the colors that CMYK color printers produce. The Adobe RGB color space is significantly larger than the sRGB color space, particularly in the cyan and green regions.

Aimpoint is a specific value assigned to a given metric to assess performance achievement.

Artifact (defect) is a general term to describe a broad range of undesirable flaws or distortions in digital reproductions produced during image capture or data processing. Some common forms of image artifacts include noise, chromatic aberration, blooming, interpolation, and imperfections created by compression.

Batch is a group of files that are created under the same conditions or are related intellectually or physically. During digitization, batches represent groups of records that are digitized and undergo QC inspection processes together.

Bit depth is the number of bits used to represent each pixel in an image. The term is sometimes used to represent bits per pixel and at other times, the total number of bits used multiplied by the number of total channels. For example, a typical color image using 8 bits per channel is often referred to as a 24-bit color image (8 bits x 3 channels). Color scanners and digital cameras typically produce 24-bit (8 bits x 3 channels) images or 36-bit (12 bits x 3 channels) capture, and high-end devices can produce 48-bit (16-bit x 3 channels) images. Bit depth is also referred to as ''color depth.''

Clipping is the abrupt truncation of a signal when the signal exceeds a system's ability to differentiate signal values above or below a particular level. In the case of images, the result is that there is no differentiation of light tones when the clipping is at the high end of signal amplitude, and no differentiation of dark tones when clipping occurs at the low end of signal amplitude.

CMYK is a subtractive color model used in printing that is based on cyan (C), magenta (M), yellow (Y), and black (K). These are typically referred to as ''process colors.'' Cyan absorbs the red component of white light, magenta absorbs green, and yellow absorbs blue. In theory, the mix of the three colors will produce black, but black ink is also used to increase the density of black in a print.

Color accuracy is measured by computing the color difference (ΔE2000) between the digital imaging results of the standard target patches and their premeasured color values. By imaging an appropriate target and evaluating through the software, variances from known values can be determined, which is a good indicator of how accurately the system is recording color. Analytical software measures the average deviation of all color patches measured (the mean).

Color channel misregistration is the measurement of color-to-color spatial dislocation of otherwise spatially coincident color features of a digitized object.

Color management is using software, hardware, and procedures to measure and control color in an imaging system, including capture and display devices.

Color space is a specific organization of colors that supports reproducible representations of color in combination with color profiling supported by various devices. A color space can be a helpful conceptual tool for describing or understanding the color capabilities of a particular device or digital file. Examples of color spaces include Adobe RGB 1998, sRGB, ECIRGB_v2, and ProPhoto RGB.

Compression, lossless is a technique for data compression that will allow the decompressed data to be exactly the same as the original data before compression, bit-for-bit. The compression of data is achieved by coding redundant data in a more efficient manner than in the uncompressed format.

Compression, visually lossless is a form or manner of lossy compression where the data that is lost after the file is compressed and decompressed is not detectable to the human eye; the compressed data appearing identical to the uncompressed data.

Digital Image Conformance Evaluation (DICE) is the measurement and monitoring component of the Federal Agencies Digital Guidelines Initiative (FADGI) Conformance Program. The program consists of measuring ISO-compliant reference targets and using analysis software such as OpenDICE for testing and monitoring digitization programs to ensure they meet FADGI technical parameters. Agencies can access FADGI-compliant tools and resources online at *http://www.digitizationguidelines.gov/guidelines/digitize-OpenDice.html.*

Digitization project is any action an agency (including an agent acting on the agency's behalf, such as a contractor) takes to digitize permanent records. For example, a digitization project can range from a one-time digitization effort to a multiyear digitization process; can involve digitizing a single document into a digital records management system or digitizing boxes of records from storage facilities; or can include digitizing active records as part of an ongoing business process or digitizing inactive records for better access.

Digitized record is a digital record created by converting paper or other media formats to a digital form that is of sufficient authenticity, reliability, usability, and integrity to serve in place of the source record.

Dynamic range is the ratio between the smallest and largest possible values of a changeable quantity, frequently encountered in imaging or recorded sound. Dynamic range is another way of stating the maximum signal-to-noise ratio.

Federal Agencies Digital Guidelines Initiative (FADGI) is a collaborative effort by Federal agencies to articulate Technical Guidelines that form the basis for many of the technical parameters in this part, which equate to the FADGI three-star level. Agencies can access FADGI online at *http://www.digitizationguidelines.gov/guidelines/digitize-technical.html.*

Grayscale is an image type lacking any chromatic data, consisting of shades of gray ranging from white to black. Most commonly seen as having 8 bits per pixel, allowing for 256 shades or levels of intensity.

Image quality is the degree of perceived or objective measurement of a digital image's overall accuracy in faithfully reproducing an original. A digital image created to a high degree of accuracy meets or exceeds objective performance attributes (such as level of detail, tonal and color fidelity, and correct exposure), and has minimal defects (such as noise, compression artifacts, or distortion).

Lightness uniformity measures how evenly a lens records the lighting of neutral reference targets from center to edge and between points within the image.

Modulation transfer function (MTF)/spatial frequency response (SFR) is the modulation ratio between the output image and the ideal image. SFR measures the imaging system's ability to maintain contrast between progressively smaller image details. Using these two functions, a system can make an accurate determination of resolution related to the sampling frequency.

Newton's Rings are interference patterns that appear as a series of concentric, alternating light and dark rings of colored light (when imaged in a color mode). This type of interference is caused when smooth transparent surfaces come into contact with small gaps of air between the surfaces. The light waves reflect from the top and bottom surfaces of the air film formed between the surfaces, causing light rays to constructively or destructively interfere with each other. The areas where there is constructive interference will appear as light bands and the areas where there is destructive interference will appear as dark bands.

Noise is one or more undesirable image artifact(s) in a digitized record that is not part of the source material.

Pixels per inch (ppi), describes the resolution capabilities of an imaging device, such as a scanner, or the resolution of a digital image. PPI is different from dots per inch (dpi).

Posterization is an effect produced by reducing the number of tones (colors) in an image so that there is a noticeable distinction between one tone and another instead of a gradual shift between them.

Precision is the characteristic of measurement that relates to the consistency between multiple measurements, under uniform conditions, of the same item or process. As opposed to accuracy, precision does not indicate how close a measurement is to a true value.

Quantization is a lossy compression technique that involves compressing a range of values to a single quantum value, usually to reduce file size. This may result in flaws in an image, such as posterization, caused by reducing the data available in an image file to represent aspects like colors.

Raster image is a digitally encoded representation of a subject's tonal and brightness information into a bitmap. Data from digital cameras and scanning devices record light characteristics as numerical values into a grid, or raster, of picture elements (pixels).

Reference target is a chart of test patterns and patches with known standard values used to evaluate the performance of an imaging system.

Reflective digitization is a process in which an imaging system captures reflected light off of scanned objects such as bound volumes, loose pages, cartographic materials, illustrations, posters, photographic prints, or newsprint.

Reproduction scale accuracy measures the relationship between the physical size of the original object and the size in pixels per inch (PPI) of that object in the digital image.

Resolution is the level of spatial detail rendered by an imaging system as measured by MTF/SFR.

Sampling frequency measures the imaging spatial resolution and is computed as the physical pixel count or pixels per unit of measurement, such as pixels per inch (PPI). This parameter provides information about the size of the original and the data needed to determine the level of detail recorded in the file. (*See also* modulation transfer function (MTF)/spatial frequency response (SFR).)

Sharpening artificially enhances details to create the illusion of greater definition. Image quality testing using the SFR quantifies the level of sharpening introduced by imaging systems or applied by users in post-processing actions.

Source record is the record from which a digitized version or digitized record is created. The source record should be the record copy that was used in the course of agency business.

Spatial resolution determines the amount (for example, quantity, PPI, megapixels) of data in a raster image file in terms of the number of picture elements or pixels per unit of measurement, but it does not define or guarantee the quality of the information. Spatial resolution defines how finely or widely spaced the individual pixels are from each other. The actual rendition of fine detail is more dependent on the SFR of the scanner or digital camera.

sRGB is a standard RGB color space created by HP and Microsoft for use on monitors, printers, and the internet. sRGB uses the ITU–R BT.709–5 primaries that are also used in studio monitors and HDTV, and a transfer function (gamma correction) typical of CRTs (cathode ray tube TVs and computer monitors), all of which permits sRGB to be directly displayed on typical monitors. The sRGB gamma is not represented by a single numerical value. The overall gamma is approximately 2.2, consisting of a linear (gamma 1.0) section near black, and a non-linear section elsewhere involving a 2.4 exponent and a gamma changing from 1.0 through about 2.3.

Tolerance is the allowable deviation from a specified value.

Tone response or optoelectronic conversion function (OECF) is a measure of how accurately the digital imaging system converts light levels into digital pixels.

Transmissive digitization is a process in which the system transmits light through a photographic slide or negative.

White balance error is a measurement of the digital file's color neutrality. The definition of ''neutral'' is not universal: RGB workflows that use digital count values encode neutral as defined by the International Color Consortium (ICC) color space chosen. L*a*b* workflows define neutral as 0 on the a* axis and b* axis, with the lightness recorded from 0–100 on the L* axis.

§ 1236.42 Records management requirements.

(a) Before starting a digitization project, agencies must establish intellectual control of the records that will be digitized. Intellectual control means having the information necessary to identify and understand the content and context of the records. One traditional records management technique to establish intellectual control is the creation of an inventory. The inventory must identify whether the records are complete, if there are any gaps in coverage or missing records, the presence of any mixed-media records, the disposition schedule under which the records fall, the date range when the records were created, any access or use restrictions that apply to the records, and the records' storage location.

(b) Agencies must identify any relationships between the source records in order to retain these relationships between the digitized versions. For example, are there case files that are associated by case number? Does a folder contain multiple documents that are stapled together? Are there digital components of a mixed-media file stored on removable media (DVD or USB drives)? What is the relationship of the folder to other folders in a box? Any relationships must be captured as part of the digitization process:

(1) Through metadata (See § 1236.54 for metadata requirements);

(2) By organizing the folder structure of a file system;

(3) By using file formats that allow for multi-page files, such as PDF or TIFF; or

(4) Through a combination of these approaches.

(c) In addition, the inventory can be used to identify all the elements of physical control needed for the records to be digitized. Physical control includes understanding the physical characteristics of source records. Physical characteristics determine a project's scope, and the image capture techniques and equipment to be used. For example, the type of paper, the type of printing, or the size of the records can impact what methods and equipment are used to digitize records.

(d) There are additional considerations for managing the source records during the digitization process:

(1) Ensure there are appropriate safeguards for the source records to prevent their loss or damage.

(2) Restrict access to source records while they are being digitized to minimize the risk of unauthorized additions, deletions, or alterations.

(3) Ensure there is a process to identify and document gaps in coverage or missing records.

(e) Agencies must ensure that records are free from unauthorized alteration, destruction, or deletion by complying with the mechanisms and controls specified in §§ 1236.10 and 1236.20:

(1) The agency may generate checksums using the SHA–256 hash algorithm and record them as technical metadata in a recordkeeping system for each image file when digitization is complete and the agency determines that the records are no longer in active use and the metadata are no longer subject to any changes that may result from ongoing business use. Use the checksums to monitor the digitized records for corruption or alteration and capture them as metadata as required in § 1236.54; or

(2) The agency may perform file integrity monitoring or file comparison audits.

(f) If there are born-digital records that are part of the record series within the project, follow the instructions for managing mixed-media records in § 1236.52.

§ 1236.44 Documenting digitization projects.

Agencies must create digital documentation when digitizing permanent source records. The agency must retain this documentation alongside the digitized records until the digitized records have been transferred to NARA and NARA has notified the agency that the accessioning process is complete. The agency must dispose of the documentation in accordance with an appropriate General Records Schedule (GRS) or agency records schedule. The required documentation will help the agency populate the Transfer Request instrument (TR) in NARA's Electronic Records Archives (ERA). The following documents are required:

(a) A defined project plan that identifies:

(1) Record series or file units to be digitized;

(2) Method that will be used to name digitized records;

(3) Estimated date range of the source records;

(4) Missing pages;

(5) Gaps or missing records in the series. Depending on the type of gap or missing records, indicate if there will be charge-out cards for skipped or missing records that will be inter-filed if they are transferred at a later date;

(6) Estimated volume, media types, dimensions, physical characteristics, and condition of the source records;

(7) Equipment and software used to digitize records;

(8) Estimated file storage requirements for the digitized records. The file storage needs may affect project decisions, such as compression and file format;

(9) Any access or use restrictions that apply to the records;

(10) Method used to capture the relationships that exist between source records once they are digitized; and

(11) Any metadata element labels that differ from those specified in § 1236.54.

(b) Any information needed to associate the digitized records to the source records' agency records schedule(s) including the item numbers;

(c) Any related finding aids, indexes, inventories, logs, registers, or metadata schemas the agency uses to manage the records that can serve as sources for the metadata required in § 1236.54.

(d) A quality management (QM) plan that ensures the project meets the quality assurance (QA) objectives and quality control (QC) inspection procedures.

(1) The quality management plan must include the policies, functions, roles, responsibilities, requirements, and objectives for the project.

(2) The quality assurance component of the QM plan must include documentation of:

(i) Image quality performance parameters selected to capture the information present in the source records;

(ii) Equipment and device acceptance testing methods and results;

(iii) Design reviews to evaluate if digitization workflows meet the requirements; and

(iv) Training conducted.

(3) The quality control component of the QM plan must document:

(i) The procedures used to inspect image quality;

(ii) The procedures used to inspect metadata quality;

(iii) The corrective actions taken to mitigate deviations throughout all phases of the project; and

(iv) The procedures used to verify that digitized records conform to the requirements.

§ 1236.46 Quality management requirements.

(a) *Quality assurance (QA) requirements.* The agency must meet the image quality performance parameters specified in § 1236.50 by verifying how well the equipment meets the aim points and tolerances of the parameters. The agency cannot rely solely on equipment specifications, such as scanner ppi settings or camera sensor megapixels, to ensure digital image quality.

(1) The agency must use QA processes to:

(i) Quantify scanner or camera performance before selecting the equipment by scanning a reference target and measuring the results with analytical software to determine if the equipment meets the technical parameters.

(ii) Evaluate internal or external vendor imaging systems against image quality performance parameters;

(iii) Monitor equipment performance by quantifying scanner or camera performance during digitization; and

(iv) Verify that resulting digital files meet project specifications.

(b) *Quality Control (QC) requirements.* The agency must implement QC inspection and monitoring processes to ensure that images meet the digitization image quality parameters in § 1236.50.

(1) The Federal Agencies Digital Guidelines Initiative (FADGI) Digital Image Conformance Evaluation program (DICE) is a QC inspection and monitoring process that uses image targets and analysis software to verify compliance. Applied properly, this methodology will ensure agencies meet the requirements in § 1236.50.

(2) If the agency does not adopt the FADGI Conformance Evaluation program, it must document both the procedures used and how it verified conformance to the quality parameters.

(c) *Quality Control (QC) testing and analysis.* During the digitization process, the agency must perform QC testing and analysis to identify malfunctioning or improperly configured digitization equipment, improper software application settings, incorrect metadata capture, or human error, and take corrective actions. It must:

(1) Implement an image quality analysis process and use reference targets to verify that digitization devices conform to imaging parameters in this subpart;

(2) Replace reference targets as they fade or accumulate dirt, scratches, and other surface marks that reduce their usability;

(3) Regularly test equipment to ensure scanners and digital cameras/copy systems are performing optimally. It must:

(i) Scan a reference target containing a grayscale, color chart, and accurate dimensional scale at the beginning of each workday;

(ii) Use image quality analysis software to verify that the performance evaluation specifications are being met; and

(iii) Perform additional tests when problems are detected.

(4) Test equipment with the specific software/device driver combination(s), and re-test after any changes to the workflow; and

(5) Ensure that equipment operation, settings, and image processing actions are the same as those used to evaluate

the test target. Turn off auto correction settings in the capture equipment such as ''auto exposure'' that may cause non-conformance of the target evaluation or the resulting image files.

(d) *Quality control inspection.* (1) The agency must perform QC inspections of the digital records for compliance with the technical parameters and criteria specified in this subpart. The inspection must ensure 100% of the image files:

(i) Can open and be displayed;

(ii) Are encoded with a compression type and in a format specified in § 1236.48; and

(iii) Have the resolution, color mode, bit depth, and color profile specified in § 1236.50.

(2) The agency must perform a visual inspection using a statistically valid technique:

(i) The agency may visually inspect a random sample of a minimum of ten digital records or 10% of each batch of digital records, whichever is larger; or

(ii) The agency may employ a statistically valid sampling plan to verify that the image quality, file quality, metadata quality, and completeness requirements have been met. Agencies that employ their own sampling technique must include documentation of the method used, as specified in § 1236.44(d)(3)(i).

(3) Visual inspection must be conducted using a calibrated graphics workstation and using a monitor set to 100% magnification to check the following image quality characteristics:

(i) Image tone, brightness, contrast, and color accuracy match the specifications in § 1236.50;

(ii) Images are free from clipping (missing detail lost in highlights or shadows);

(iii) Images are free from color channel misregistration, or quantization errors;

(iv) Images are free of any image artifacts that compromise the informational content of the record, such as dust, Newton's rings, missing pixels, scan lines, drop-outs, flare, or over-sharpening; and

(v) Images are not improperly cropped, have the expected dimensions and orientation (landscape/horizontal or portrait/vertical), and images are not flipped, inverted, or skewed.

(e) *Corrective measures.* If the inspection reveals errors, perform the following steps until there is a 100% success rate for the sample set:

(1) If 1% or more of examined records fail to meet any of the criteria in § 1236.50, determine the source and scope of any errors, correct or re-digitize affected records, and reinspect the images by following the requirements in paragraph (d) of this section;

(2) If less than 1% of examined records fail to meet any of the criteria in § 1236.50, determine the source and scope of any errors and correct or re-digitize the affected records.

(f) *Inspection for other quality aspects.* The agency must inspect the resulting files to verify that they meet the metadata and records completeness requirements:

(1) *Metadata quality.* The agency must evaluate the accuracy of metadata. This may be done using automated techniques if appropriate. Otherwise, the QC inspections must be done manually. These inspections must ensure that:

(i) Files are named according to project specifications; and

(ii) Correct administrative, descriptive, and technical metadata are captured in a recordkeeping system and in image files.

(2) *Records completeness.* The agency must employ automated and visual inspection processes to verify the completeness and accuracy of digitization:

(i) Verify that all records have been accounted for by referring to box lists, folder title lists, or other inventories;

(ii) Compare source records with their digitized versions to verify that 100% of the informational content has been captured;

(iii) Compare source records with their digitized versions to verify the digitized records are in the same order;

(iv) Examine records for related envelopes, notes, or other forms of media to verify that all sources of record information have been digitized;

(v) Verify that any mixed-media records that cannot be digitized are associated with the digitized records using the ''Relation'' metadata elements in § 1236.54(c); and

(vi) Confirm that missing pages or images have been noted in the project documentation.

§ 1236.48 File format requirements.

(a) The agency must encode, retain, and transfer digitized records in one of the following file formats, either uncompressed or using one of the specified compression codecs in tables 1 and 2 to this section.

(1) Agencies that combine multiple uncompressed TIFF images into PDF/A files using JPEG2000 compression must perform the quality inspection step specified in 1236.46(d) against the resulting PDF/A files.

(2) When using JPEG 2000 visually lossless compression, agencies must determine the amount of compression to apply, not to exceed 20:1, by performing tests and visually evaluating for compression artifacts that obscure or alter the information content.

(b) The agency must encode, retain, and transfer digitized permanent paper records in one of the following file formats, either uncompressed or with one of the compression codecs specified in table 1 to this paragraph (b).

TABLE 1 TO PARAGRAPH (b)—FILE FORMAT REQUIREMENTS FOR DIGITIZED PERMANENT PAPER RECORDS TABLE

Format name and version	Acceptable compression codecs
TIFF 6.0	Uncompressed, Deflate (ZIP).
JPEG2000 part 1 (ISO/IEC 15444–1:2019)	JPEG 2000 part 1 core coding system lossless compression. Agencies may use up to 20:1 visually lossless compression.
Portable network graphics 1.2 (PNG)	Deflate (ZIP).
PDF/A (Select any version of PDF/A that meets project requirements. However, do not use the attachments feature in PDF/A–3 or PDF/A–4.	Deflate (ZIP), JPEG 2000 part 1 core coding system lossless compression. Agencies may use up to 20:1 visually lossless compression.

(c) The agency must encode, retain, and transfer digitized photographic print records in one of the following file formats, either uncompressed or with one of the compression codecs specified in the table 2 to this paragraph (c).

(1) For a series of predominantly textual records with interspersed photographic prints, use the formats in table 1 to paragraph (b) of this section for paper records. All photographic prints must be digitized according to the standards in § 1236.50.

(2) For a series of predominantly printed photographs, including those with paper records interspersed, use the

file formats in table 2 to this paragraph (c) for photographic print records.

(3) However, the agency must not transcode, or interpolate (upsample) files anywhere in the workflow.

TABLE 2 TO PARAGRAPH (c)—FILE FORMAT REQUIREMENTS FOR DIGITIZED PERMANENT PHOTOGRAPHIC PRINT RECORDS TABLE

Format name and version	Acceptable compression codecs
TIFF 6.0	Uncompressed, Deflate (ZIP).
JPEG2000 part 1 (ISO/IEC 15444–1:2019)	JPEG 2000 part 1 core coding system lossless compression. Agencies may use up to 20:1 visually lossless compression.
Portable network graphics 1.2 (PNG)	Deflate (ZIP).

§ 1236.50 Requirements for digitizing permanent paper and photographic print records.

(a) *Overview.* This section describes the minimum requirements appropriate for digitizing paper records. Depending on the physical characteristics of the source records, the agency must select the applicable specifications described in either table 1 to paragraph (d) of this section for modern textual paper records or the table 2 to paragraph (e) of this section for photographic prints and paper records with fine details. Agencies must implement appropriate equipment, lighting, special handling, or imaging methods to ensure the capture of all information. Agencies may exceed these requirements, if necessary, to capture fine detail or to meet their own business needs.

(b) *Image quality parameters.* The performance parameters are based on FADGI three-star aim points and tolerance ranges.

(c) *Equipment requirements.* The equipment used to digitize Federal records must be appropriate for the media type, and capable of achieving documented project objectives without damaging the source records.

(d) *Requirements for digitizing modern textual paper records.* For these records, produce image files at a minimum of 300 ppi sized to the source document.

(1) Records suitable for the specifications in table 1 to this paragraph (d) for modern textual paper records are modern textual documents with a well-defined printed type (such as typeset, typed, laser-printed), and with moderate to high contrast between the ink of the text and the paper background. Performance metric values in table 1 for modern textual paper records conform to the FADGI ''Documents (Unbound): Modern Textual Records'' category, and are appropriate when source records do not have visible content with L* values darker than 20. Neutral reference patches on the evaluation test target with L* less than 20 are not used for analysis.

(2) For other paper records such as manuscripts, illustrations, graphics, and documents with poor legibility or diffuse characters (such as carbon copies or Thermofax) that have visible content with L* values darker than 20, agencies must evaluate neutral reference patches on the evaluation test target with L* greater than 20. (These values equate to FADGI three-star for ''Documents (Unbound): General Collections'').

(3) The agency must digitize in an acceptable RGB color mode if records contain color or other characteristics that are necessary to interpret the information of the source record, or that would be lost when digitizing using grayscale gamma 2.2.

(4) At a minimum, the agency must digitize the paper records covered by this paragraph to the following parameters:

TABLE 1 TO PARAGRAPH (d)—REQUIREMENTS FOR DIGITIZING PERMANENT, MODERN TEXTUAL PAPER RECORDS TABLE

Digital file specifications	Attributes
Color mode	color or grayscale.
Bit depth	8 or 16.
Color space	gray gamma 2.2, AdobeRGB1998, sRGB, ProPhoto RGB, ECIRGBv2.
Resolution (Sampling Frequency) (Units are Pixels Per Inch/ppi minus Reproduction Scale Accuracy).	≥294 ppi (300 ppi—2%).
Measurement parameters	**Performance metric values Difference from aim (applies to 20 ≤ L* ≤ 100).**
Tone Response (OECF) L* (Units Colorimetric ΔL*) gray patches that meet the measurement parameters.	± 5.
White Balance (Units Colorimetric ΔE(a*b*)) gray patches that meet the measurement parameters.	≤4%.
Lightness Uniformity (Units Colorimetric—Standard Deviation Divided by Mean L*)	≤3%.
Average Color Accuracy (Units Colorimetric—Mean ΔE 2000—for patches meeting the measurement parameters).	≤ 3.5.
Color Accuracy 90th Percentile (Units Colorimetric—2.5 times average deviation for patches meeting the measurement parameters).	≤ 8.75.
Color Channel Misregistration (Units Pixels)	< 0.5 pixel.
SFR 10 (Sampling Efficiency) (Measurement is a Ratio %)	>80%.
MTF50 (50% SFR) (Percentage of Half Sampling Frequency) [Lower, Upper]	Percentage of half sampling frequency: [>40%, <75%].
Reproduction Scale Accuracy (Units % Difference from Header PPI)	<±2%.
Sharpening (Units Max Modulation)	< 1.1.
Noise (Upper Limit) (Units Std Dev of L*)	≤ 2.

TABLE 1 TO PARAGRAPH (d)—REQUIREMENTS FOR DIGITIZING PERMANENT, MODERN TEXTUAL PAPER RECORDS TABLE—Continued

Measurement parameters	
Noise (Warning Limit) (Units Std Dev of L*)	≥.25.

(e) *Requirements for digitizing photographic prints and paper records that have fine details.* Records that have fine detail, require a high degree of color accuracy, or have other unique characteristics, must be captured using the specifications in table 2 to this paragraph (e) for photographic prints and paper records with fine details. For these records, produce image files (as described table 2) at a minimum of 400 ppi sized to the source document (these performance values equate to FADGI three-star category ''Prints and Photographs''). It may be necessary to apply a higher resolution than the minimum for some records that have fine detail.

(1) These specifications apply to records such as photographic prints, graphic-arts prints (for example, lithographs or intaglio), drawings, embossed seals, and records that have information that cannot be captured by the parameters in table 1 to paragraph (d) of this section for modern textual paper records.

(i) For records in which the smallest significant detail is 1.0 mm or smaller, such as aerial photographs and topographic maps (which require a high degree of enlargement and precision to ensure the dimensional accuracy of the scans), the agency must increase the resolution to capture all the information in the source record.

(ii) For many imaging devices, increasing the ppi settings may not increase the actual resolution level or capture the desired detail. The equipment for digitizing records with fine detail must be capable of meeting the higher quality parameters. It may be necessary to exceed the parameters in table 2 to this paragraph (e) to capture all the information inherent in the records.

(2) The agency must digitize photographic prints, including monochrome and black and white, using a color mode.

(3) The agency must digitize in an acceptable color mode if records contain color or other characteristics that are necessary to interpret the information of the source record, or that would be lost when digitizing using grayscale gamma 2.2.

(4) At a minimum, agencies must digitize all records covered by this paragraph to the following parameters:

TABLE 2 TO PARAGRAPH (e)—REQUIREMENTS FOR DIGITIZING PERMANENT, PHOTOGRAPHIC PRINT RECORDS AND PAPER RECORDS THAT HAVE FINE DETAILS

Digital file specifications	Attributes
Color mode	color or grayscale.
Bit depth	8 or 16.
Color space	Gray gamma 2.2, AdobeRGB1998, ProPhoto RGB, ECIRGBv2.
Resolution (Sampling Frequency) (Units are Pixels Per Inch/ppi minus Reproduction Scale Accuracy).	≥392 ppi (400 ppi—2%).
Measurement parameters	**Performance metric values**
Tone Response (OECF) L* (Units Colorimetric ΔL2000*) for any given gray patch	± 4.
White Balance (Units Colorimetric ΔE(a*b*)) for any given gray patch	≤4.
Lightness Uniformity (Units Colorimetric − Standard Deviation Divided by Mean)	<3%.
Average Color Accuracy(Units Colorimetric—Mean ΔE 2000—average deviation of all patches).	<3.5.
Color Accuracy 90th Percentile (Units Colorimetric—2.5 times average deviation of all patches).	<8.75.
Color Channel Misregistration (Units Pixels)	<0.5 pixel.
SFR10 (Sampling Efficiency) (Measurement is a Ratio %)	80%.
SFR50 (50% SFR) (Units Percentage of Half Sampling Frequency) [Lower, Upper]	Percentage of half sampling frequency: [>40%, <75%].
Reproduction Scale Accuracy (Units % Difference from Header PPI)	<± 2%.
Sharpening (Units Max Modulation)	<1.1.
Noise (Upper Limit) (Units Std Dev of L*)	<2.
Noise (Lower Limit) (Units Std Dev of L*)—A warning should be raised if the image doesn't meet this criteria.	≥.25.

§ 1236.52 Requirements for digitizing permanent mixed-media records.

Mixed-media files are records that belong together or relate to a common topic and are stored on more than one media type. Mixed-media files result from the processes agencies use to create, maintain, and use records. For example, a case file may include paper records, online digital records, and digital records on storage media.

(a) For any non-paper media, agencies must analyze the contents to determine whether any files are records.

(1) If the media contains records that are temporary, manage them according to their appropriate GRS or agency-specific records authority.

(2) If the media contains records that are permanent, but not part of the digitized record series, locate their disposition schedule and capture them in a digital information system that complies with the requirements in

§ 1222.26 of this subchapter and §§ 1236.10 through 1236.14.

(3) If the media contains born-digital components of mixed-media files that are related to the digitized records series, capture the born-digital records in a recordkeeping system in accordance with § 1222.26 of this subchapter and associate the born-digital records with any related records once they are digitized using the ''Relation'' metadata elements in § 1236.54.

(4) If they are permanent records stored on a media type that is out of scope for this subpart, document this information according to the instructions in § 1236.44. Agencies must maintain the association between records using the ''Relation'' metadata elements specified in § 1236.54.

(b) Contact the Records Management Policy and Standards Team at *rmstandards@nara.gov* for guidance on what to do with types of media in a mixed-media file that are outside the scope of this subpart, such as dynamic media, x-rays, negative or positive film, or other special media types.

§ 1236.54 Metadata requirements.

(a) *General.* To ensure that intellectual and physical control of the digital records can be maintained, this regulation specifies metadata elements that must be captured in a recordkeeping system, or embedded in each file, or both captured in a recordkeeping system and embedded in each file. Ensure that the metadata remains accurate and consistent regardless of where it is stored.

(1) If using metadata to capture relationships between source records as required in § 1236.42(b), agencies must use the ''Relation'' metadata elements in table 1 to paragraph (c)(1) of this section for basic administrative metadata.

(2) If using different metadata labels from the ones required in this section, agencies must document the labels that the agency uses and note this in the Details section of the ERA (Electronic Records Archive) Transfer Request (TR).

(3) Determine the appropriate level to be used as the source of descriptive metadata. Depending on the agency's existing recordkeeping practices and level of intellectual control, use information from the project, record series, file unit, or item level as the source for administrative, technical, and descriptive metadata fields. If the components of a record have not been individually indexed with unique descriptions, apply the series or file unit-level descriptions to all of the image files within that grouping. If the components of the record do not have individual titles, the agency must apply the item Record IDs instead.

(4) Include additional metadata if it is captured. If other metadata elements are provided in addition to the metadata requirements in this subpart, NARA will accept that metadata as part of the transfer process.

(b) *Metadata capture requirements.* Agencies must:

(1) Capture the metadata specified by paragraphs (c) through (e) of this section at the file or item level as part of the digitization project;

(2) Create file names and record IDs that are unique to each image file;

(3) Embed the metadata specified by paragraph (c) of this section in each image file, capture and maintain it in a recordkeeping system, associate it with the records it describes, and keep it consistent and accurate in both places;

(4) Ensure that scanning equipment embeds the system-generated technical metadata specified by table 4 to paragraph (e)(1) of this section for format technical metadata and table 5 to paragraph (e)(2) of this section for processing technical metadata in each image file, and ensure that image processing does not alter or delete it; and

(5) Transfer metadata to NARA in CSV format.

(c) *Administrative metadata.* (1) Capture in a recordkeeping system and embed in each image file the following administrative metadata:

TABLE 1 TO PARAGRAPH (c)(1)—BASIC ADMINISTRATIVE METADATA

Metadata label	Description	Requirement level
Identifier: File Name	The complete name of the computer file, including its extension.	Mandatory (file names are an inherent attribute of each file so there is no need to embed them as an element of metadata).
Identifier: Record ID	The unique identifier assigned by an agency or a records management system. 36 CFR 1236.20(b)(1) requires that agencies assign unique identifiers to each record.	Mandatory.
Identifier: Records Schedule Item #.	The number assigned to the agency records schedule or GRS item to which the record belongs.	Mandatory.
Relation: Has Part	A related record that is either physically or logically required in order to form a complete record. Mixed-media files that contain records on multiple media types must use this element to identify all components.	Mandatory if a record includes multiple parts, such as the component parts of a case file or mixed-media file.
Relation: Is Part Of	A related record or file in which the described record is physically or logically included. Use this element to indicate that a record is a component of a mixed-media file.	Mandatory if file is a component of a multi-part record.

(2) Capture in a recordkeeping system and embed in each file any of the following access and use restrictions the metadata inherited from the source records:

TABLE 2 TO PARAGRAPH (c)(2)—ACCESS AND USE RESTRICTIONS ADMINISTRATIVE METADATA

Metadata label	Required fields	Description	Requirement level
Access Restrictions	Access Restriction Status	Indicate whether or not there are access restrictions on the record.	Mandatory.
	Specific Access Restriction	Specific access restrictions on the record, based on national security considerations, donor restrictions, court orders, and other statutory or regulatory provisions, including Privacy Act and Freedom of Information Act (FOIA) exemptions.	Mandatory if access restriction exists
Use Restrictions	Use Restriction Status	Indicate whether or not there are use restrictions on the record.	Mandatory.
	Specific Use Restriction	The type of use restrictions on the record, based on copyright, trademark, service mark, donor, or statutory provisions.	Mandatory if use restriction exists.
Rights: Rights Holder		A person or organization owning or managing intellectual property rights relating to the record.	Mandatory if there is a rights holder.

(d) *Descriptive metadata.* Capture the following descriptive metadata from source records at the lowest level needed to support access and preservation and to maintain contextual information. Depending on the agency's existing recordkeeping practices and level of intellectual control, it may use information from the project level, record series, file unit, or item, as the source for descriptive metadata. If the components of a record have not been individually indexed with unique descriptions, apply the series or file unit-level descriptions to all of the image files within that grouping. If source records share a common material type or dimensions, auto-populate the source type and source dimension metadata. If the components of the record do not have individual titles, the agency must apply the item Record IDs instead. Capture the metadata in a recordkeeping system for each image file:

TABLE 3 TO PARAGRAPH (d)—DESCRIPTIVE METADATA TABLE

Metadata label	Description	Requirement level
Title	A name given to the source record. If a name does not exist, the mandatory metadata element Identifier: Record ID serves as the title for the record.	Mandatory.
Description	A narrative description of the content of the record, including abstracts of documents	Mandatory.
Creator	The agent (person, agency, other organization, etc.) primarily responsible for creating the source record.	Mandatory.
Date: Creation Date	The date or date range indicating when the source record met the definition of a Federal record.	Mandatory.
Source Type	The medium of the source record that was scanned to create a digital still image	Mandatory.
Source Dimensions	The dimensions of the source record (including unit of measure)	Mandatory.

(e) *Technical metadata.* (1) Ensure that the following values are embedded in each image file and that image processing does not delete or alter them:

TABLE 4 TO PARAGRAPH (e)(1)—TECHNICAL METADATA—IMAGE TABLE

Metadata label	Definition	Requirement level
Date Time Created	The date or date-and-time the digital image was created.	Mandatory.
Image Width	The width of the digital image, *i.e.,* horizontal or X dimension, in pixels.	Mandatory.
Image Height	The height of the digital image, *i.e.,* vertical or Y dimension, in pixels.	Mandatory.
Color Space	The name of the International Color Consortium (ICC) profile used.	Mandatory.
Bits Per Sample	Number of bits per component	Mandatory.
Samples Per Pixel	The number of components per pixel. Usually, 1 for grayscale images and 3 for RGB images.	Mandatory.

(2) Ensure that the following process metadata elements are recorded for each image file:

TABLE 5 TO PARAGRAPH (e)(2)—TECHNICAL METADATA—PROCESS TABLE

Metadata label	Definition	Requirement level
Scanner Make and Model	The manufacturer and model of the scanner used to create the image.	Mandatory if using a scanner.
Digital Camera Make and Model	The manufacturer and model of the digital camera used to create the image.	Mandatory if using a digital camera.
Software Name and Version	The name and version of the software used to capture the image	Mandatory if using scanning software.

(3) Capture the following technical metadata in a recordkeeping system for each image file, and use them to monitor digital records for corruption or alteration:

TABLE 6 TO PARAGRAPH (e)(3)—TECHNICAL METADATA—CHECKSUM TABLE

Fixity metadata label	Description	Requirement level
Message Digest Algorithm	The specific algorithm used to construct the message digest for the digital object or bitstream.	Mandatory if using checksums as described in § 1236.42(e)(1).
Message Digest (checksum)	The output of Message Digest Algorithm	Mandatory if using checksums as described in § 1236.42(e)(1).

§ 1236.56 Validating digitized records and disposition authorities.

(a) When a digitization project is complete, the agency must validate that the digitized versions meet the standards in this subpart.

(b) Separate staff must conduct the validation, independent from the staff that performed the digitization QC inspections described in § 1236.46.

(c) Agencies must verify that:

(1) All records identified in the project's scope have either been digitized or have been identified in project documentation as missing or incomplete records (and the agency must note this information in the Details section of the ERA TR when transferring the records);

(2) All required metadata are accurate, complete, and correctly labeled;

(3) All image technical attributes specified in § 1236.50 have been met;

(4) All image files are legible and all physical characteristics necessary to understand and use the records have been captured;

(5) Mixed-media files are digitized appropriately for the material type, or if mixed-media components are retained in their original format, they are associated with digitized components through metadata, per the requirements specified in § 1236.54(c); and

(6) Project documentation has been created according to § 1236.44.

(d) Once validated, the digitized records are permanent records.

(e) After validating, the agency must determine whether the agency has any reasons for retaining the source records for a period of time once digitized, in keeping with § 1236.40(g).

(f) Unless source records will be retained for reasons identified in § 1236.40(g), the agency must dispose of the source records in accordance with an agency records schedule or GRS that addresses disposition after digitization.

(g) Agencies cannot use the GRS to dispose of source records if the digitized records do not meet the requirements in this subpart. In such cases, agencies should contact the Records Management Policy and Standards Team at *rmstandards@nara.gov* to determine what steps they must take.

(h) Agencies must transfer the digitized records to NARA according to the approved disposition authority and include the transfer metadata as described in § 1236.58.

(i) Agencies must retain the project documentation described in § 1236.44 until the National Archives confirms receipt of the records and legal custody of the records has been transferred.

(j) Agencies must transfer the administrative, technical, and descriptive metadata captured during the digitization project as CSV files, as described in § 1236.54(b)(6), with the resulting digitized records.

■ 8. Add subpart F, consisting of § 1236.58, to read as follows:

Subpart F—Transfer Metadata

§ 1236.58 Transfer metadata.

When agencies transfer permanent records to the National Archives' legal and physical custody, the agency must provide transfer metadata to NARA. The transfer metadata must be entered into the Electronic Records Archives (ERA) when the Transfer Request (TR) is created to begin transferring the records. Each transfer of digital records must include the following metadata that applies to the transfer as a whole:

TABLE 1 TO § 1236.58—TRANSFER METADATA TABLE

Metadata label	Required fields	Description	Requirement level
Transfer Request Number	Transfer Request Number	The number automatically generated when a Transfer Request is created.	Mandatory.
Transfer Title	Transfer Title	The name assigned to the collection, set or series of records the agency is transferring to NARA.	Mandatory.
Dates	Inclusive Start Date	The beginning date on which the record group, collection, series, or set the agency is transferring to NARA was created, maintained, or accumulated by the creator.	Mandatory.

TABLE 1 TO § 1236.58—TRANSFER METADATA TABLE—Continued

Metadata label	Required fields	Description	Requirement level
	Inclusive End Date	The last date on which the record group, collection, series, or set the agency is transferring to NARA was created, maintained, or accumulated by the creator.	Mandatory.
Creating Organization	Creating Organization	The name of the organization responsible for creating, accumulating, or maintaining the collection, series, or set when in working (primary) use.	Mandatory.
Record Group Number	Parent Record Group Number.	The unique number assigned to a record group	Mandatory.
General Records Type	General Records Type	The general form of the records set, series, or collection the agency is transferring, including but not limited to: architectural and engineering drawings, artifacts, data files, maps and charts, moving images, photographs, and other graphic materials, sound recordings, textual records, or web pages.	Mandatory.
Access Restrictions	Access Restriction Status	Indicate whether or not there are access restrictions on the set, collection, or series of records the agency is transferring to NARA.	Mandatory.
	Specific Access Restriction	Specific access restrictions on the set, collection, or series of records, including but not limited to: restrictions based on national security considerations, donor restrictions, court orders, and other statutory or regulatory provisions, including Privacy Act and Freedom of Information Act (FOIA) exemptions.	Mandatory if access restriction exists.
Use Restrictions	Use Restriction Status	Indicate whether or not there are use restrictions on the set, collection, or series of records transferring to NARA.	Mandatory.
	Specific Use Restriction	The type of use restrictions on the set, collection, or series of records, including but not limited to restrictions based on: copyright, trademark, service mark, donor, or statutory provisions, including Privacy Act and Freedom of Information Act (FOIA) exemptions.	Mandatory if use restriction exists.
Records Schedule Number	Records Schedule Number	The number NARA assigned to the agency records schedule that applies to all the records in the collection, series, or set transferring.	Mandatory.

Debra Steidel Wall,

Acting Archivist of the United States.

[FR Doc. 2023–09050 Filed 5–3–23; 8:45 am]

BILLING CODE 7515–01–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA–HQ–OPP–2022–0932; FRL–10947–01–OCSPP]

Ledprona (CAS# 2433753–68–3) for Use in or on Potato; Temporary Exemption From the Requirement of a Tolerance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes a temporary exemption from the requirement of a tolerance for residues of Ledprona (CAS# 2433753–68–3) in or on potatoes when used in accordance with the terms of Experimental Use Permit (EUP) No. 94614–EUP–1. GreenLight Bioscience, Inc. submitted a petition to EPA under the Federal Food, Drug, and Cosmetic Act (FFDCA) for a temporary exemption from the requirement of a tolerance for residues of Ledprona on all raw agricultural products and food products. After reviewing the petition and supporting data, the Agency has limited the temporary tolerance exemption to residues of Ledprona on potatoes only. This regulation eliminates the need to establish a maximum permissible level for residues of Ledprona in or on potatoes. This temporary tolerance exemption expires on April 30, 2025.

DATES: This regulation is effective May 4, 2023. Objections and requests for hearings must be received on or before July 3, 2023, and must be filed in accordance with the instructions provided in 40 CFR part 178 (see also Unit I.C. of the **SUPPLEMENTARY INFORMATION**).

ADDRESSES: The docket for this action, identified by docket identification (ID) number EPA–HQ–OPP–20–2022–0932, is available at *https://www.regulations.gov* or at the Office of Pesticide Programs Regulatory Public Docket (OPP Docket) in the Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave. NW, Washington, DC 20460–0001. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room, and the telephone number for the OPP Docket is (202) 566–1744. Please review the visitor instructions and additional information about the docket available at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Frank Ellis, Biopesticides and Pollution Prevention Division (7511M), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001; main telephone number: (703) 328–3074; email address: *BPPDFRNotices@epa.gov.*

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).
- Pesticide manufacturing (NAICS code 32532).

B. How can I get electronic access to other related information?

You may access a frequently updated electronic version of 40 CFR part 180 through the Office of the Federal Register's e-CFR site at *https://www.ecfr.gov/current/title-40.*

C. How can I file an objection or hearing request?

Under FFDCA section 408(g), 21 U.S.C. 346a(g), any person may file an objection to any aspect of this regulation and may also request a hearing on those objections. You must file your objection or request a hearing on this regulation in accordance with the instructions provided in 40 CFR part 178. To ensure proper receipt by EPA, you must identify docket ID number EPA–HQ–OPP–2022–0932 in the subject line on the first page of your submission. All objections and requests for a hearing must be in writing, and must be received by the Hearing Clerk on or before July 3, 2023. Addresses for mail and hand delivery of objections and hearing requests are provided in 40 CFR 178.25(b).

In addition to filing an objection or hearing request with the Hearing Clerk as described in 40 CFR part 178, please submit a copy of the filing (excluding any Confidential Business Information (CBI)) for inclusion in the public docket. Information not marked confidential pursuant to 40 CFR part 2 may be disclosed publicly by EPA without prior notice. Submit the non-CBI copy of your objection or hearing request, identified by docket ID number EPA–HQ–OPP–20–2022–0932, by one of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be CBI or other information whose disclosure is restricted by statute.
- *Mail:* OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001.
- *Hand Delivery:* To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at *https://www.epa.gov/dockets/where-send-comments-epa-dockets.*

Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at *https://www.epa.gov/dockets.*

II. Background

In the **Federal Register** of January 3, 2023 (88 FR 38) (FRL–9410–08–OCSPP), EPA issued a document pursuant to FFDCA section 408(d)(3), 21 U.S.C. 346a(d)(3), announcing the filing of a pesticide tolerance petition (2G9024) by GreenLight Bioscience, Inc., 200 Boston Ave., Suite 1000, Medford, MA 02155. The petitioner requested that 40 CFR part 180 be amended by establishing a temporary exemption from the requirement of a tolerance for residues of Ledprona on all raw agricultural products and food products. That document referenced a summary of the petition prepared by the petitioner GreenLight Biosciences, Inc., which is available in the docket at *https://www.regulations.gov.* There were no comments received in response to the notice of filing.

Based upon review of the petition and associated data and in accordance with its authority under FFDCA section 408(d)(4)(A)(i) and (r), EPA is establishing a temporary exemption from the requirement of a tolerance for residues of Ledprona in or on potatoes only when used in accordance with the terms of Experimental Use Permit No. 94614–EUP–1. The EUP is authorized for testing on potatoes only; therefore, the Agency has limited the temporary tolerance to potatoes alone.

III. Final Rule

A. EPA's Safety Determination

Section 408(r) of FFDCA authorizes EPA to establish a temporary exemption from the requirement of a tolerance for residues covered by an experimental use permit issued under the Federal Insecticide, Fungicide, and Rodenticide Act. That section states that the provisions of section 408(c)(2) of FFDCA apply to exemptions issued under FFDCA section 408(r). Section 408(c)(2)(A)(i) of FFDCA allows EPA to establish an exemption from the requirement for a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the exemption is ''safe.'' Section 408(c)(2)(A)(ii) of FFDCA defines ''safe'' to mean that ''there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information.'' This includes exposure through drinking water and in residential settings but does not include occupational exposure. Pursuant to FFDCA section 408(c)(2)(B), in establishing or maintaining in effect an exemption from the requirement of a tolerance, EPA must take into account the factors set forth in FFDCA section 408(b)(2)(C), which require EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing a tolerance or tolerance exemption and to ''ensure that there is a reasonable certainty that no harm will result to infants and children from aggregate exposure to the pesticide chemical residue . . . .'' Additionally, FFDCA section 408(b)(2)(D) requires that EPA consider ''available information concerning the cumulative effects of [a particular pesticide's] . . . residues and other substances that have a common mechanism of toxicity.''

EPA evaluated the available toxicity and exposure data for Ledprona and considered its validity, completeness, and reliability, as well as the relationship of this information to human risk. In summary, dietary risk from the use of Ledprona is considered negligible because dietary exposure to residues of Ledprona in or on food or feed is expected to be negligible and no adverse effects were observed in toxicity testing. A full summary of the data upon which EPA relied and its risk assessments based on that data can be found within the document entitled, ''Human health and product characterization for the Experimental Use Permit application for Calantha™, containing 0.8% of the new active ingredient 'Ledprona' dsRNA for use on potatoes and associated petition to establish a temporary tolerance exemption'' (Human Health Risk Assessment). This document, as well as other relevant information, is available in the docket for this action as described under **ADDRESSES**.

Available data have demonstrated that, with regard to humans, Ledprona presents no adverse effects of concern and exposure to the active ingredient will be insignificant. Ledprona consists of double-stranded ribonucleic acid (dsRNA) that induces mortality of the Colorado potato beetle (*Leptinotarsa decemlineata*) via a gene silencing mode of action. When dsRNA is applied, it causes the inhibition (or silencing) of the gene product, messenger RNA

(mRNA), preventing the translation of the mRNA to proteins. Ledprona dsRNA is targets the *Proteasome subunit beta type-5* (*PSMB5*) mRNA sequence in the Colorado potato beetle. *PSMB5* mRNA encodes a protein that regulates proper folding of other proteins in the Colorado potato beetle. Once Ledprona is ingested by the Colorado potato beetle, over time the lack of *PSMB5* mRNA leads to the reduction of the *PSMB5* protein and ultimately causes mortality.

Dietary exposure to Ledprona through residues of the active ingredient in or on food or feed as well as in drinking water is expected to be negligible. As detailed in the Human Health Risk Assessment, dietary exposure to Ledprona is anticipated to be limited for the following reasons: (1) The EUP is limited to foliar application on potatoes. Underground tubers would not be directly exposed to Ledprona, so consumption of residues on potatoes is expected to be limited; (2) Once applied, Ledprona is expected to undergo rapid degradation due to microbial activity; (3) Submitted data show that Ledprona rapidly degrades in the mammalian gut; and (4) Mammals possess physiological barriers (*i.e.,* nucleases in saliva and gastrointestinal tract, acidic conditions in the stomach, presence of multiple membrane barriers) that prevent uptake of dsRNA. Ledprona is expected to degrade within 20–25 hours after application at the EUP label rates in microbially rich environments (*e.g.,* soil) Further, Ledprona rapidly degrades in simulated gastric fluids (within 10 minutes in simulated intestinal fluid and within 20 minutes in simulated gastric fluid) and degrades at similar rates as RNA extracted from plants. This information allows EPA to rely on a well-established history of exposure to RNA molecules via food. These data indicate that dietary exposure from the use of this active ingredient is considered negligible.

In addition to the lack of exposure described above, submitted acute oral toxicity studies demonstrated a lack of hazard of Ledprona to the mammalian surrogate species, rats, *in vivo.* A bioinformatic analysis was conducted to evaluate the likelihood of off-target effects of the Ledprona dsRNA in humans *in silico,* by computer analysis of Ledprona RNA segments. The analysis represents the potential for Ledprona dsRNA 21-mers (21 nucleotide segments) to match RNA segments in the human transcriptome (*i.e.,* the set of all human RNA transcripts, including coding and non-coding). The analysis identified three Ledprona 21-mers which display the potential to match and subsequently silence target mRNAs *in silico.* The three 21-mers are predicted to overlap with non-coding RNAs. However, the analysis assumes that the 21-mers identified would be capable of bypassing physiological barriers to access the cell nucleus in sufficient quantities. As described above, submitted data show that Ledprona rapidly degrades in the mammalian gut, and the physiological barriers present in mammals (*i.e.,* nucleases in saliva and gastrointestinal tract, acidic conditions in the stomach, presence of multiple membrane barriers) impede the uptake of dsRNA, therefore negating any silencing potential of the 21-mer partial matches via the oral route of exposure.

The potential for residential exposure is highly unlikely because there are no residential uses proposed for the EUP under which Ledprona would be applied. Non-occupational exposure is unlikely because applications will occur in experimental plots generally not accessible to bystanders. However, should bystander exposure occur post-application (*i.e.,* contact with treated foliage), adverse effects are not expected since Ledprona is non-toxic through the dermal route of exposure.

Section 408(b)(2)(D)(v) of FFDCA requires that, when considering whether to establish, modify, or revoke a tolerance, the Agency consider ''available information'' concerning the cumulative effects of a particular pesticide's residues and ''other substances that have a common mechanism of toxicity.'' No risk of cumulative toxicity/effects from Ledprona have been identified as no toxicity has been shown for Ledprona in the submitted studies. Therefore, EPA has not assumed that Ledprona has a common mechanism of toxicity with other substances.

Although FFDCA section 408(b)(2)(C) provides for an additional tenfold margin of safety for infants and children in the case of threshold effects, EPA has determined that there are no such effects due to the lack of toxicity of Ledprona. As a result, an additional margin of safety for the protection of infants and children is unnecessary.

Based upon its evaluation, EPA concludes that there is reasonable certainty that no harm will result to the U.S. population, including infants and children, from aggregate exposure to residues of Ledprona in or on potatoes. This includes all anticipated dietary exposures for which there is reliable information. The Agency has arrived at this conclusion based on the rapid degradation of the active ingredient in environmental and biological conditions, mammalian physiological barriers limiting the uptake of dsRNA, and the lack of effects observed in toxicity testing.

B. Analytical Enforcement Methodology

EPA has determined that an analytical method is not required for enforcement purposes since the Agency is establishing an exemption from the requirement of a tolerance without any numerical limitation.

C. Conclusion

Based upon its evaluation in the Human Health Risk Assessment, EPA concludes that there is a reasonable certainty that no harm will result to the U.S. population, including infants and children, from aggregate exposure to residues of Ledprona in or on potatoes. Therefore, a temporary exemption from the requirement of a tolerance is established for residues of Ledprona in or on potatoes when used in accordance with the terms of Experimental Use Permit No. 94614–EUP–1.

IV. Statutory and Executive Order Reviews

This action establishes a tolerance exemption under FFDCA section 408(d) in response to a petition submitted to the Agency. The Office of Management and Budget (OMB) has exempted these types of actions from review under Executive Order 12866, entitled ''Regulatory Planning and Review'' (58 FR 51735, October 4, 1993). Because this action has been exempted from review under Executive Order 12866, this action is not subject to Executive Order 13211, entitled ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001) or Executive Order 13045, entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997). This action does not contain any information collections subject to OMB approval under the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), nor does it require any special considerations under Executive Order 12898, entitled ''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations'' (59 FR 7629, February 16, 1994).

Since tolerances and exemptions that are established on the basis of a petition under FFDCA section 408(d), such as the exemption in this final rule, do not require the issuance of a proposed rule, the requirements of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*), do not apply.

This action directly regulates growers, food processors, food handlers, and food retailers, not States or tribes, nor does this action alter the relationships or distribution of power and responsibilities established by Congress in the preemption provisions of FFDCA section 408(n)(4). As such, the Agency has determined that this action will not have a substantial direct effect on States or tribal governments, on the relationship between the national government and the States or tribal governments, or on the distribution of power and responsibilities among the various levels of government or between the Federal Government and Indian tribes. Thus, the Agency has determined that Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999) and Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 9, 2000) do not apply to this action. In addition, this action does not impose any enforceable duty or contain any unfunded mandate as described under Title II of the Unfunded Mandates Reform Act (UMRA) (2 U.S.C. 1501 *et seq.*).

This action does not involve any technical standards that would require Agency consideration of voluntary consensus standards pursuant to section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note).

V. Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 180

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: May 1, 2023.

Frank Ellis,

Acting Director, Biopesticides and Pollution Prevention Division, Office of Pesticide Programs.

Therefore, for the reasons stated in the preamble, EPA is amending 40 CFR part 180 as follows:

PART 180—TOLERANCES AND EXEMPTIONS FOR PESTICIDE CHEMICAL RESIDUES IN FOOD

■ 1. The authority citation for part 180 continues to read as follows:

Authority: 21 U.S.C. 321(q), 346a and 371.

■ 2. Add § 180.1403 to subpart D to read as follows:

§ 180.1403 Ledprona; temporary exemption from the requirement of a tolerance.

A temporary exemption from the requirement of a tolerance is established for residues of Ledprona in or on potato when used in accordance with the terms of Experimental Use Permit No. 94614–EUP–1. This temporary exemption from the requirement of a tolerance expires on April 30, 2025.

[FR Doc. 2023–09486 Filed 5–3–23; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 635

[Docket No. 220919–0193]

RTID 0648–XC917

Atlantic Highly Migratory Species; Atlantic Bluefin Tuna Fisheries; Angling Category Retention Limit Adjustment

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; retention limit adjustment.

SUMMARY: NMFS has determined, based on consideration of the regulatory determination criteria regarding inseason adjustments, that the Atlantic bluefin tuna (BFT) daily retention limit that applies to Highly Migratory Species (HMS) Angling and HMS Charter/Headboat permitted vessels (when fishing recreationally for BFT) should be adjusted for the remainder of 2023. NMFS is adjusting the Angling category BFT daily retention limit from the default of one school, large school, or small medium BFT to: two school BFT and one large school/small medium BFT per vessel per day/trip for private vessels with HMS Angling permits; three school BFT and one large school/small medium BFT per vessel per day/trip for charter boat vessels with HMS Charter/Headboat permits when fishing recreationally; and six school BFT and two large school/small medium BFT per vessel per day/trip for headboat vessels with HMS Charter/Headboat permits when fishing recreationally. These retention limits are effective in all areas, except for the Gulf of Mexico, where targeted fishing for BFT is prohibited.

DATES: Effective May 3, 2023 through December 31, 2023.

FOR FURTHER INFORMATION CONTACT: Lisa Crawford, *lisa.crawford@noaa.gov,* 301–427–8503; Larry Redd, Jr., *larry.redd@noaa.gov,* 301–427–8503; Nicholas Velseboer, *nicholas.velseboer@noaa.gov,* 978–281–9260.

SUPPLEMENTARY INFORMATION: Atlantic HMS fisheries, including BFT fisheries, are managed under the authority of the Atlantic Tunas Convention Act (ATCA; 16 U.S.C. 971 *et seq.*) and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; 16 U.S.C. 1801 *et seq.*). The 2006 Consolidated Atlantic HMS Fishery Management Plan (FMP) and its amendments are implemented by regulations at 50 CFR part 635. Section 635.27 divides the U.S. BFT quota recommended by the International Commission for the Conservation of Atlantic Tunas (ICCAT) and as implemented by the United States among the various domestic fishing categories, per the allocations established in the 2006 Consolidated Atlantic HMS FMP and its amendments. NMFS is required under the Magnuson-Stevens Act to provide U.S. fishing vessels with a reasonable opportunity to harvest quotas under relevant international fishery agreements such as the ICCAT Convention, which is implemented domestically pursuant to ATCA.

As described in § 635.27(a), the current baseline U.S. BFT quota is 1,316.14 metric tons (mt) (not including the 25-mt ICCAT allocated to the United States to account for bycatch of BFT in pelagic longline fisheries in the Northeast Distant Gear Restricted Area). The Angling category baseline quota is 297.4 mt. This baseline quota is further subdivided into subquotas by size class (see Table 1) as follows: 134.1 mt for school BFT, 154.1 mt for large school/small medium BFT, and 9.2 mt for large medium/giant BFT. Large school and small medium BFT traditionally have been managed as one size class, *i.e.,* a limit of one large school/small medium BFT (measuring 47 to less than 73 inches, 119 to less than 150 cm). Similarly, large medium and giant BFT traditionally have been managed as one size class that is also known as the ''trophy'' class. Currently, the default Angling category daily retention limit of

one school, large school, or small medium BFT is in effect and applies to HMS Angling and HMS Charter/Headboat permitted vessels (when fishing recreationally for BFT) (§ 635.23(b)(2)).

TABLE 1—BFT SIZE CLASSES

Size class	Curved fork length
School	27 to less than 47 inches (68.5 to less than 119 cm).
Large school	47 to less than 59 inches (119 to less than 150 cm).
Small medium	59 to less than 73 inches (150 to less than 185 cm).
Large medium	73 to less than 81 inches (185 to less than 206 cm).
Giant	81 inches or greater (206 cm or greater).

Adjustment of Angling Category Daily Retention Limit

Under § 635.23(b)(3), NMFS may increase or decrease the Angling category retention limit for any size class of BFT after considering determination criteria provided under § 635.27(a)(7). Also under § 635.23(b)(3), recreational retention limits may be adjusted separately for specific vessel type, such as private vessels, headboats, or charter boats.

NMFS has considered all of the relevant determination criteria and their applicability to the change in the Angling category retention limit. After considering these criteria, NMFS has decided to adjust the Angling category retention limits as follows:

(1) For private vessels with HMS Angling permits, this action adjusts the limit upwards to two school BFT and one large school/small medium BFT per vessel per day/trip (*i.e.,* two BFT measuring 27 to less than 47 inches (68.5 to less than 119 cm) and one BFT measuring 47 to less than 73 inches (119 to less than 185 cm)).

(2) For charter boat vessels with HMS Charter/Headboat permits, this action adjusts the limit upwards to three school BFT and one large school/small medium BFT per vessel per day/trip when fishing recreationally for BFT (*i.e.,* three BFT measuring 27 to less than 47 inches (68.5 to less than 119 cm) and one BFT measuring 47 to less than 73 inches (119 to less than 185 cm)).

(3) For headboat vessels with HMS Charter/Headboat permits, this action adjusts the limit upwards to six school BFT and two large school/small medium BFT per vessel per day/trip when fishing recreationally for BFT (*i.e.,* six BFT measuring 27 to less than 47 inches (68.5 to less than 119 cm) and one BFT measuring 47 to less than 73 inches (119 to less than 185 cm)).

Regardless of the duration of a fishing trip, the daily retention limit applies upon landing. For example, whether a private vessel (fishing under the Angling category retention limit) takes a 2-day trip or makes two trips in 1 day, the day/trip limit of two school BFT and one large school/small medium BFT applies and may not be exceeded upon landing.

Consideration of the Determination Criteria

Regarding the usefulness of information obtained from catches in the particular category for biological sampling and monitoring of the status of the stock (§ 635.27(a)(7)(i)), biological samples collected from BFT landed by recreational fishermen continue to provide NMFS with valuable parts and data for ongoing scientific studies of BFT age and growth, migration, and reproductive status. Additional opportunity to land BFT would support the continued collection of a broad range of data for these studies and for stock monitoring purposes.

NMFS also considered recent catches of the Angling category quota to date and the likelihood of closure of that segment of the fishery if no adjustment is made (§ 635.27(a)(7)(ii)). Additionally, NMFS considered Angling category landings in 2022, which were approximately 93 percent of the 245.9-mt annual Angling category quota in 2022, including landings of approximately 36 percent of the available school BFT quota in 2022, under the same daily retention limits as implemented in this action. Thus, absent retention limit adjustment, NMFS anticipates that the available 2023 Angling category quota would not be harvested under the default retention limit.

NMFS also considered the effects of the adjustment on the BFT stock and the effects of the adjustment on accomplishing the objectives of the 2006 Consolidated HMS FMP (§ 635.27(a)(7)(v) and (vi)). These retention limits would be consistent with established quotas and subquotas, which are implemented consistent with ICCAT recommendations, (established in Recommendation 21–07), ATCA, and the objectives of the 2006 Consolidated HMS FMP and amendments. In establishing these quotas and subquotas and associated management measures, ICCAT and NMFS considered the best scientific information available, objectives for stock management and status, and effects on the stock. These retention limits are in line with the established management measures and stock status determinations. It is also important that NMFS limit landings to the subquotas both to adhere to the FMP quota allocations and to ensure that landings are as consistent as possible with the pattern of fishing mortality (*e.g.,* fish caught at each age) that was assumed in the latest stock assessment, and these retention limits are consistent with those objectives. Another principal consideration in setting the retention limit is the objective of providing opportunities to harvest the available Angling category quota without exceeding the available quota, based on the objectives of the 2006 Consolidated HMS FMP and its amendments, including to achieve optimum yield on a continuing basis and to allow all permit categories a reasonable opportunity to harvest available BFT quota allocations (related to § 635.27(a)(7)(x)).

NMFS considered input on recreational limits from the HMS Advisory Panel at its May and September 2022 meetings and that ICCAT recommendations and HMS implementing regulations limit the allowance for landings of school BFT to 10 percent of the U.S. baseline quota (*i.e.,* 134.1 mt). The 2022 school BFT landings represented approximately 3.5 percent of the total U.S. quota for 2022, well under the ICCAT recommended 10-percent limit. NMFS is not setting higher school BFT limits than the adjustments listed due to the potential risk of exceeding the ICCAT tolerance limit on school BFT and other considerations, such as potential effort shifts to BFT fishing as a result of current recreational retention limits for New England groundfish and striped bass as well as high variability in BFT availability.

Given that the Angling category landings fell short of the available Angling category quota in 2022, even

with the retention limit adjustments, and considering the regulatory criteria above, NMFS has determined that the Angling category retention limits applicable to HMS Angling and HMS Charter/Headboat permitted vessels should be adjusted upwards from the default levels.

NMFS has also concluded that implementation of separate limits for private, charter boat, and headboat vessels is appropriate, recognizing the different nature, social and economic needs, and recent landings results of the two components of the recreational BFT fishery. For example, charter operators historically have indicated that a retention limit greater than the default limit of one fish is vital to their ability to attract customers. In addition, Large Pelagics Survey estimates indicate that charter/headboat BFT landings averaged 43 percent of recent recreational landings for 2022, with the remaining 57 percent landed by private vessels. NMFS has further concluded that a higher limit for headboats (than charter boats) is appropriate, given the limited number of headboats participating in the BFT fishery.

NMFS anticipates that the BFT daily retention limits in this action will result in landings during 2023 that would not exceed the available subquotas. Lower retention limits could result in substantial underharvest of the Angling category subquota, and increasing the daily limits further may risk exceeding the available quota, contrary to the objectives of the 2006 Consolidated HMS FMP and amendments.

Monitoring and Reporting

NMFS will continue to monitor the BFT fishery closely. HMS Angling and HMS Charter/Headboat permitted vessel owners are required to report the catch of all BFT retained or discarded dead, within 24 hours of the landing(s) or the end of each trip, by accessing *https://www.hmspermits.noaa.gov* or by using the HMS Catch Reporting app, or calling (888) 872–8862 (Monday through Friday from 8 a.m. until 4:30 p.m.).

Depending on the level of fishing effort and catch rates of BFT, NMFS may determine that additional retention limit adjustments or closures are necessary to ensure available quota is not exceeded or to enhance scientific data collection from, and fishing opportunities in, all geographic areas. If needed, subsequent adjustments will be published in the **Federal Register**. In addition, fishermen may call the Atlantic Tunas Information Line at (978) 281–9260, or access *www.hmspermits.noaa.gov,* for updates on quota monitoring and inseason adjustments.

HMS Angling and HMS Charter/Headboat permit holders may catch and release (or tag and release) BFT of all sizes, subject to the requirements of the catch-and-release and tag-and-release programs at § 635.26. All BFT that are released must be handled in a manner that will maximize their survival, and without removing the fish from the water, consistent with requirements at § 635.21(a)(1). For additional information on safe handling, see the ''Careful Catch and Release'' brochure available at *https://www.fisheries.noaa.gov/resource/outreach-and-education/careful-catch-and-release-brochure.*

Classification

NMFS issues this action pursuant to section 305(d) of the Magnuson-Stevens Act and regulations at 50 CFR part 635 and is exempt from review under Executive Order 12866.

The Assistant Administrator for NMFS (AA) finds that pursuant to 5 U.S.C. 553(b)(B), it is impracticable and contrary to the public interest to provide prior notice of, and an opportunity for public comment on, this action for the following reasons. Specifically, the regulations implementing the 2006 Consolidated HMS FMP and amendments provide for inseason retention limit adjustments to respond to the unpredictable nature of BFT availability on the fishing grounds, the migratory nature of this species, and the regional variations in the BFT fishery. Providing prior notice and opportunity for public comment on this daily retention limit adjustment for the remainder of 2023 at this time is impracticable. NMFS could not have proposed this action earlier, as it needed to consider and respond to updated landings data from the 2022 Angling category. If NMFS was to offer a public comment period or delay in effective date now, after having appropriately considered that information, it would preclude the fishery from harvesting BFT that are available on the fishing grounds that might otherwise become unavailable during a delay, and/or could result in selection of a retention limit inappropriately high or low for the amount of quota available for the period.

Fisheries under the Angling category daily retention limit are currently underway and thus prior notice would be contrary to the public interest. Delays in increasing daily recreational BFT retention limit would adversely affect those HMS Angling and HMS Charter/Headboat permitted vessels that would otherwise have an opportunity to harvest more than the default retention limit of one school, large school, or small medium BFT per day/trip and may exacerbate the problem of low catch rates and quota rollovers. Analysis of available data shows that adjustment to the BFT daily retention limit from the default level would result in minimal risk of exceeding the ICCAT-allocated quota. Taking this action does not raise conservation and management concerns. NMFS notes that the public had an opportunity to comment on the underlying rulemakings that established the U.S. BFT quota and the inseason adjustment criteria.

For all of the above reasons, the AA finds that pursuant to 5 U.S.C. 553(d), there also is good cause to waive the 30-day delay in effective date.

Authority: 16 U.S.C. 971 *et seq.* and 1801 *et seq.*

Dated: April 28, 2023.

Jennifer M. Wallace,

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

[FR Doc. 2023–09420 Filed 5–3–23; 8:45 am]

BILLING CODE 3510–22–P

Proposed Rules

Federal Register
Vol. 88, No. 86
Thursday, May 4, 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.

FEDERAL HOUSING FINANCE AGENCY

12 CFR Part 1236

RIN 2590–AB10

Prudential Management and Operations Standards

AGENCY: Federal Housing Finance Agency.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Federal Housing Finance Agency (FHFA) is proposing to amend its prudential management and operations standards Rule (rule) to clarify that FHFA may establish prudential management and operations standards (Standards) as regulations as well as guidelines. The proposed amendments to the rule would also revise definitions and make other conforming changes. FHFA is not proposing to establish new Standards or to revise Standards already established. However, FHFA is proposing that the rule and some of the existing Standards in the appendix to the rule be made applicable to the Office of Finance of the Federal Home Loan Bank System (OF).

DATES: Comments must be received by July 3, 2023.

ADDRESSES: You may submit your comments on the proposed rule, identified by regulatory information number (RIN) 2590–AB10, by any one of the following methods:

- *Agency Website: www.fhfa.gov/open-for-comment-or-input.*
- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments. If you submit your comment to the Federal eRulemaking Portal, please also send it by email to FHFA at *RegComments@fhfa.gov* to ensure timely receipt by FHFA. Include the following information in the subject line of your submission: Comments/RIN 2590–AB10.
- *Hand Delivered/Courier:* The hand delivery address is: Clinton Jones, General Counsel, Attention: Comments/RIN 2590–AB10, Federal Housing Finance Agency, Fourth Floor, 400 Seventh Street SW, Washington, DC 20219. Deliver the package at the Seventh Street entrance Guard Desk, First Floor, on business days between 9 a.m. and 5 p.m.
- *U.S. Mail, United Parcel Service, Federal Express, or Other Mail Service:* The mailing address for comments is: Clinton Jones, General Counsel, Attention: Comments/RIN 2590–AB10, Federal Housing Finance Agency, Fourth Floor, 400 Seventh Street SW, Washington, DC 20219. Please note that all mail sent to FHFA via U.S. Mail is routed through a national irradiation facility, a process that may delay delivery by approximately two weeks. For any time-sensitive correspondence, please plan accordingly.

FOR FURTHER INFORMATION CONTACT: Clinton Jones, General Counsel, (202) 649–3006, *Clinton.Jones@fhfa.gov;* or Francisco Medina, Assistant General Counsel, (202) 649–3076, *Francisco.Medina@fhfa.gov.* These are not toll-free numbers. The mailing address is: Federal Housing Finance Agency, 400 Seventh Street SW, Washington, DC 20219. For TTY/TRS users with hearing and speech disabilities, dial 711 and ask to be connected to any of the contact numbers above.

SUPPLEMENTARY INFORMATION:

I. Comments

FHFA invites comments on all aspects of the proposed rule and will consider all comments before issuing a final rule. Copies of all comments will be posted without change and will include any personal information provided, such as the commenter's name, address, email address, and telephone number, on the FHFA website at *http://www.fhfa.gov.* In addition, copies of all comments received will be available for examination by the public through the electronic rulemaking docket for this proposed rule, also located on the FHFA website.

II. Background

The Federal Housing Enterprises Financial Safety and Soundness Act (the Safety and Soundness Act) requires the Director of FHFA to establish Standards that address ten subjects relating to the management and operation of the regulated entities, authorizes the Director to establish other Standards in addition to those on the ten listed subjects, and authorizes the Director to establish Standards by regulation or guideline.[1] FHFA currently implements this statutory requirement, which is codified at 12 U.S.C. 4513b (section 4513b), through Standards that it has established as guidelines set forth in an appendix to FHFA's current rule, which is codified at 12 CFR part 1236.

Section 4513b requires a regulated entity that fails to meet a Standard to submit a corrective plan if the Standard is established by regulation, and permits FHFA to require a corrective plan if a regulated entity fails to meet a Standard established by guideline.[2] Section 4513b also establishes procedural requirements for corrective plans (including FHFA approval), and requires FHFA to establish other procedural requirements by regulation.[3]

The proposed rule addresses FHFA's determination that a regulated entity has failed to meet a Standard and FHFA's direction to the regulated entity to submit a corrective plan; the contents of a corrective plan and filing deadlines; FHFA's review of a corrective plan and notification to the regulated entity of FHFA's decision on a plan; and the regulated entity's opportunity to request FHFA to amend an approved plan and FHFA's review of proposed amendments to the plan.[4] The proposed rule also addresses procedural coordination of a corrective plan with a capital restoration plan submitted pursuant to 12 U.S.C. 4622, a cease-and-desist order entered into pursuant to 12 U.S.C. 4631 or 4632, a formal or informal agreement, or a response to a report of examination or report of inspection.[5]

Section 4513b specifies the consequences if a regulated entity fails to submit an acceptable plan within the required time period or fails to implement a corrective plan that the Director has approved.[6] In those cases, the Director must order the regulated entity to correct the deficiency.[7] Section

[1] 12 U.S.C. 4513b(a).
[2] *Id.* 4513b(b)(1)(A).
[3] *Id.* 4513b(b)(1)(C).
[4] 12 CFR 1236.4.
[5] *Id.* 1236.4(c)(2)(ii).
[6] 12 U.S.C. 4513b(b)(2).
[7] *Id.* 4513b(b)(2)(A).

4513b also provides the Director with additional discretionary authority to take other actions (including imposing limits on asset growth or requiring increases in capital, as well as taking any other action the Director believes will better carry out the purposes of section 4513b) until the regulated entity meets the standard.[8] The Director must take at least one of those additional actions for a regulated entity that has failed to submit or implement a corrective plan and has experienced ''extraordinary growth'' within the 18 months before it failed to meet the standard.[9]

The proposed rule implements these statutory provisions by setting forth a process for FHFA to notify the regulated entity of its intent to issue an order requiring the regulated entity to correct its failure to submit or implement a corrective plan, which must include FHFA's proposed action and, if applicable, FHFA's determination of ''extraordinary growth.'' [10] The proposed rule defines ''extraordinary growth,'' and does so separately for the FHLBanks and the Enterprises.[11] The proposed rule provides an opportunity for the regulated entity to respond to an FHFA notice of intent to issue an order and sets forth the actions FHFA may take on review of a response or if no response is received.[12] The proposed rule also addresses FHFA's issuance of an order that is immediately final and establishes a process for a regulated entity to appeal such an order.[13] Finally, the proposed rule addresses a request by a regulated entity for modification or rescission of an order.[14]

The proposed rule provides that failure to meet a Standard may constitute an unsafe or unsound practice for purposes of FHFA's enforcement authority.[15] Section 4513b provides that its remedial powers are in addition to any other authority of the Director and thus expressly preserves FHFA's right to exercise any other supervisory or enforcement authority available under the Safety and Soundness Act.[16] The PMOS framework does not limit FHFA's authorities and FHFA will determine the appropriate supervisory response (including the appropriate timing or sequence of supervisory action) based on the facts and circumstances of any failure or violation.

When FHFA proposed the rule and initial Standards in 2011, FHFA did not propose to apply the rule or the Standards to OF on the grounds that several of the statutorily required standards (such as the standards on relating to interest rate, market and credits risks and investment portfolio growth) would not be relevant to OF and statutory examples of corrective actions for noncompliance also would not be applicable.[17] FHFA nonetheless noted that the Safety and Soundness Act, which grants FHFA general supervisory and regulatory authority over OF, would permit FHFA to extend the rule or Standards to OF, or to establish new Standards specifically applicable to OF.[18] Likewise, section 4513b permits FHFA to establish other prudential management and operational standards as the Director deems appropriate, and permits FHFA to require a regulated entity to take any other action that the Director determines will better carry out the purposes of section 4513b than the statutorily listed actions.[19] Consequently, it is feasible to establish appropriate Standards and corrective actions for OF.

III. Overview of Proposed Amendments; Section-by-Section Analysis

A. Overview

FHFA is proposing to amend part 1236 to reflect the scope of FHFA's statutory authority to establish Standards as regulations as well as guidelines and to apply the rule and some Standards to OF.

Currently, the rule addresses ''prudential standards as guidelines,'' [20] provides that the Standards ''have been adopted as guidelines,'' [21] and states that these Standards ''constitute the prudential and operations standards'' required by section 4513b.[22] In turn, the appendix to part 1236 further provides that guidelines set forth in the appendix ''constitute the prudential and operations standards established pursuant'' to section 4513b.[23]

Taken together, the rule and its appendix imply that the guidelines in the appendix constitute the entirety of the Standards that FHFA has established and that any further Standards adopted by FHFA will similarly be established as guidelines and located in the appendix. That implication is inconsistent with FHFA's statutory authority and recent actions. Specifically, FHFA established Standards by regulation in December 2020 and May 2021.[24]

As amended, the rule would expressly reflect FHFA's statutory authority to establish Standards as either regulations or guidelines and to locate Standards established as regulations outside of the appendix to the rule. If amended as proposed, the rule would make clear that guidelines or regulations adopted by FHFA that FHFA identifies as Standards are to be considered Standards for purposes of section 4513b and part 1236.

As an administrative matter, for convenience and clarity, FHFA plans to continue establishing Standards that are guidelines through a **Federal Register** notice and comment process, and will continue locating all Standards established as guidelines in the appendix to part 1236.

FHFA is also proposing to amend the rule and the appendix to part 1236 so that the OF would be subject to the rule and identified Standards. The Standards FHFA proposes to apply to OF are the General Responsibilities of the Board of Directors and Senior Management, and Standards 1, 2, 8, and 10. Standard 1 addresses ''Internal Controls and Information Systems.'' Standard 2 addresses ''Independence and Adequacy of Internal Audit Systems.'' Standard 8 addresses ''Overall Risk Management Processes.'' Standard 10 addresses ''Maintenance of Adequate Records.'' Since adopting the rule in 2012, FHFA has revisited its decision to exclude OF from the rule and has determined that making OF subject to the rule and the identified Standards would further the purposes of section 4513b. Moreover, FHFA could in the future establish Standards by regulation or guideline that would apply only to OF. FHFA welcomes any comments on subjecting OF to the rule and the identified Standards.

Consistent with the foregoing changes, FHFA also proposes to revise and clarify definitions and make conforming changes to part 1236 and its appendix. Proposed changes to the rule are discussed by section and proposed changes to the appendix are discussed by Standard, below.

[8] *Id.* 4513b(b)(2)(B).
[9] *Id.* 4513b(b)(3).
[10] 12 CFR 1236.5(b); 12 CFR 1236.5(c)(1).
[11] *Id.* 1236.2.
[12] *Id.* 1236.5(c)(2) and 1236.5(c)(3).
[13] *Id.* 1236.5(c)(4).
[14] *Id.* 1236.5(d).
[15] 12 CFR 1236.3(d).
[16] 12 U.S.C. 4513b(c).
[17] 76 FR 35791, 35792 (June 20, 2011).
[18] *Id.; see also* 12 U.S.C. 4511(b)(2).
[19] 12 U.S.C. 4513b(a)(11) and (b)(2)(B)(iii).
[20] 12 CFR 1236.3.
[21] *Id.* 1236.3(b).
[22] *Id.* 1236.3(a).
[23] 12 CFR part 1236, appendix.
[24] *See* 12 CFR 1240.1(e)(3) (Enterprise Regulatory Capital Framework) and 12 CFR 1242.1(b) (Enterprise Resolution Planning).

B. Section 1236.1—Purpose

This section currently states that part 1236 establishes ''the'' prudential management and operations standards that are required by section 4513b. That construction was appropriate when part 1236 addressed only the 10 Standards specifically required by statute, and when all Standards established by FHFA were located within the appendix to part 1236. FHFA is proposing to remove ''the'' and to revise ''establishes'' to ''addresses'' to reflect the full scope of part 1236, and to add ''and authorized'' following ''required'' to reflect the discretion expressly conferred on FHFA to establish other operational and management Standards as the Director determines to be appropriate. These changes also acknowledge that Standards may be located either in the appendix (if they are established as guidelines) or elsewhere in chapter XII of title 12 of the Code of Federal Regulations (if they are established as regulations).

As appropriate throughout the rule, FHFA is also proposing to revise the terms ''a regulated entity,'' ''any regulated entity,'' and ''entity'' to ''a regulated entity or the Office of Finance'' to bring the OF within the scope of the rule.

C. Section 1236.2—Definitions

This section defines terms used in this part. After the rule was adopted by FHFA in 2012, FHFA adopted part 1201 of the FHFA regulations (12 CFR part 1201), one section of which sets forth definitions that apply to all FHFA regulations. FHFA is now proposing to amend § 1236.2 to include a reference to 12 CFR part 1201 as an aid to users of this part. This amendment is not a substantive change, as definitions in 12 CFR part 1201 already apply to terms used in this part.

In addition, FHFA is proposing one change to the definition of ''standard'' (which is defined within this part) to remove language that referred to § 1236.3(b), on FHFA's authority to revise Standards established as guidelines. Other changes that FHFA is proposing would cause that reference to become incomplete, as a different section of the rule would now address revisions to Standards established as regulations. On review, FHFA has determined that the reference to § 1236.3(b) is unnecessary; for that reason, instead of expanding on it, FHFA proposes to delete the reference.

D. Section 1236.3—Prudential Standards as Guidelines or Regulations

FHFA is proposing to revise § 1236.3(a) to remove language that effectively repeated the definition of ''Standard'' set forth at § 1236.2 and thus is unnecessary, and in its place add a sentence acknowledging that, as expressly authorized by statute, FHFA may establish Standards as guidelines or regulations.

Section 1236.3(b) would be amended to clarify that it applies only to Standards established as guidelines (instead of stating that it covers all Standards, which would include those established as regulations). In keeping with FHFA's prior practice, proposed revisions to § 1236.3(b) would set forth FHFA's commitment to provide public notice of and seek public comment on Standards that it proposes to establish as guidelines, or on any material modification to a Standard established as a guideline. For efficiency, however, FHFA could revoke a Standard adopted as a guideline at any time by order or notice. FHFA requests comment on these proposed processes for establishing, modifying, and revoking Standards established as guidelines.

FHFA proposes to revise § 1236.3(c) to address Standards established as regulations. Although section 4513b expressly authorizes FHFA to establish Standards as regulations, FHFA had not done so when part 1236 was promulgated in 2012. As a result, part 1236 does not currently address Standards that have been established as regulations after part 1236 was promulgated.

As proposed to be amended, § 1236.3(c) acknowledges that the Administrative Procedure Act sets forth the process for establishing Standards as regulations and amending such Standards. FHFA also proposes to clarify that Standards established as regulations may be located in part 1236, may amend existing regulations, or may be undertaken as entirely new rulemakings that would be located outside of part 1236. For example, FHFA may decide to locate a Standard established as a regulation that applies to all of its regulated entities within part 1236, but may locate a Standard established as a regulation that applies only to the Enterprises (including any affiliate of an Enterprise), or only to the Federal Home Loan Banks (including OF), outside of part 1236. Any Standard established as a regulation would be identified as a Standard in that regulation.[25] Proposed § 1236.3(c) would also make clear that Standards established as regulations are subject to the remedial and enforcement provisions of part 1236 (because they are Standards) as well as statutory enforcement provisions (because they are regulations).

FHFA proposes to re-number current § 1236.3(c) as § 1236.3(d), and to amend it to clarify that if there is a direct conflict between a Standard *adopted as a guideline* and an FHFA regulation, the regulation will control. This clarification retains the sense of current § 1236.3(c) (which recognizes the primacy of an FHFA regulation over other agency guidance), but it was not necessary when, for purposes of part 1236, all Standards were guidelines. FHFA's authority to determine that failure to meet a Standard is an unsafe or unsound practice, currently addressed in § 1236.3(d), would be relocated to § 1236.4(a) (addressed below).

E. Section 1236.4—Failure To Meet a Standard; Corrective Plans

Consistent with other proposed changes to part 1236, FHFA is proposing to expand the scope of § 1236.4, which addresses the failure to meet a Standard and submission of corrective plans, to cover Standards established as regulations. Other changes are proposed to clarify the application of § 1236.4.

As already noted, FHFA proposes to relocate its authority to determine that failure to meet a Standard is an unsafe or unsound practice, currently addressed in § 1236.3(d), to § 1236.4(a). FHFA believes this authority is more appropriately located in § 1236.4, with other regulatory provisions addressing failure to meet a Standard.

Section 1236.4(b), which addresses the submission of corrective plans, currently implies that FHFA has discretion in all cases to decide whether to require a corrective plan from a regulated entity that fails to meet a Standard. That implication was correct when part 1236 was originally adopted because part 1236 established Standards as guidelines only, and section 4513b provides that FHFA may require a corrective plan if a regulated entity fails to meet a Standard established as a guideline.[26] However, section 4513b provides that FHFA must require a corrective plan if a regulated entity fails to meet a Standard established as a regulation.[27] Consistent with those statutory provisions, and reflecting extension of the rule to OF, FHFA is now proposing to clarify in § 1236.4(b) that FHFA may require a corrective plan if a regulated entity or OF fails to meet a Standard established as a guideline, but must require a corrective plan if a

[25] *See, e.g.,* 12 CFR 1240.1(e)(3).

[26] 12 U.S.C. 4513b(b)(1)(A)(ii).

[27] *Id.* 4513b(b)(1)(A)(i).

regulated entity or OF fails to meet a Standard established as a regulation.

As a procedural matter, § 1236.4(b) provides that FHFA will inform a regulated entity or the OF that it is required to submit a corrective plan by written notice, which will also set forth FHFA's determination that the regulated entity or OF has failed a particular Standard or Standards. FHFA may otherwise inform a regulated entity or the OF that it has failed to meet a Standard, but § 1236.4(b) and (c) establish procedural requirements that govern corrective plans. For example, FHFA may provide a regulated entity a report of examination that includes a determination that the regulated entity failed to meet a particular Standard. That determination, without more, is not ''written notice'' for purposes of § 1236.4(b) and (c), because it does not include the statement that FHFA is requiring the regulated entity to submit a corrective plan. FHFA intends it to be explicitly clear when ''written notice'' for purposes of § 1236.4(b) has been provided (*e.g.,* it is likely such a notice will cite to § 1236.4(b)), to avoid confusion about the applicability of regulatory deadlines in § 1236.4(c) while permitting fulsome dialogue and communication between FHFA examiners and management of a regulated entity or OF.

Within § 1236.4(c), FHFA is proposing to relocate the requirement that plans be in writing from § 1236.4(c)(2)(i) to § 1236.4(c)(1). FHFA is also proposing to amend § 1236.4(c)(2)(ii), on submitting a corrective plan with another submission such as a capital restoration plan, to clarify that the relevant deadline may be one established by FHFA in accordance with § 1236.4(c)(2) and to expand the sorts of required plans or submissions of which a corrective plan may be a part, as deemed appropriate by FHFA. This last change is intended to reduce burden on a regulated entity or OF, if it is feasible and appropriate to combine a corrective plan under this proposed rule with another type of required plan or submission.

Finally, FHFA is also proposing conforming amendments to § 1236.4(d) and (e) to bring OF within the scope of those provisions.

F. Section 1236.5—Failure To Submit a Corrective Plan; Noncompliance

Section 1236.5 addresses FHFA authority to require a corrective order if a regulated entity fails to submit an acceptable corrective plan or fails in any material respect to implement an approved corrective plan and processes related to such an order. FHFA is proposing to revise the term ''regulated entity'' in the first clause of § 1236.5(a) to ''regulated entity or Office of Finance''. Similarly, FHFA is proposing to revise the term ''regulated entity'' to ''regulated entity or Office of Finance'' in § 1236.5(a)(6). However, given that the corrective measures set out in § 1236.5(a)(1) through (5) and § 1236.5(b) are not applicable to the OF, FHFA is not proposing to revise the term ''regulated entity'' in those provisions. FHFA is also proposing conforming amendments to § 1236.5(c), (d), and (e) to extend the application of those paragraphs to OF.

G. Appendix to Part 1236

FHFA is proposing to revise the introductory text of the appendix to be consistent with proposed amendments to the rule. Currently that introductory text states the provisions in the appendix ''constitute the prudential management and operations standards established pursuant to 12 U.S.C. 4513b'' and thus implies that FHFA has established all Standards as guidelines located in the appendix, even though FHFA has also established Standards as regulations located in different parts of title 12, chapter XII, of the Code of Federal Regulations. Although FHFA intends to continue locating Standards established as guidelines in the appendix, FHFA may locate any additional Standards established as regulations outside of part 1236.

FHFA is also proposing to add a sentence after the introductory text of the appendix stating that the General Responsibilities of the Board of Directors and Standards 1, 2, 8, and 10 in the appendix apply to OF as appropriate. In addition, FHFA is proposing to revise the General Responsibilities of the Board of Directors and Standards 1, 2, 8, and 10 in the appendix so that these Standards would apply to OF as appropriate. In particular, FHFA is proposing to revise the term ''regulated entity'' in those Standards to ''regulated entity and Office of Finance'' or some variation thereof.

V. Differences Between Banks and Enterprises

Section 1313(f) of the Safety and Soundness Act (12 U.S.C. 4513(f)), as amended by section 1201 of the Housing and Economic Recovery Act of 2008, requires the Director, when promulgating regulations relating to the Banks, to consider the differences between the Banks and the Enterprises with respect to the Banks' cooperative ownership structure; mission of providing liquidity to members; affordable housing and community development mission; capital structure; and joint and several liability. The Director may also consider any other differences that are deemed appropriate. In preparing this proposed rule, the Director considered the differences between the Banks (including OF) and the Enterprises as they relate to the above factors, and determined that the rule is appropriate.

VI. Paperwork Reduction Act

The proposed rule would not contain any information collection requirement that would require the approval of the Office of Management and Budget (OMB) under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). Therefore, FHFA has not submitted any information to OMB for review.

VII. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires that a regulation that has a significant economic impact on a substantial number of small entities, small businesses, or small organizations must include an initial regulatory flexibility analysis describing the regulation's impact on small entities. Such an analysis need not be undertaken if the agency has certified that the regulation will not have a significant economic impact on a substantial number of small entities. 5 U.S.C. 605(b). FHFA has considered the impact of this proposed rule under the Regulatory Flexibility Act. The General Counsel of FHFA certifies that this proposed rule, if adopted as a final rule, is not likely to have a significant economic impact on a substantial number of small entities because the regulation applies only to the regulated entities and the Office of Finance, which are not small entities for purposes of the Regulatory Flexibility Act.

List of Subjects in 12 CFR Part 1236

Administrative practice and procedure, Federal home loan banks, Government-sponsored enterprises, Office of Finance, Prudential Management and Operations Standards, Reporting and recordkeeping requirements.

Accordingly, for the reasons stated in the Preamble, FHFA proposes to amend part 1236 of chapter XII of title 12 of the Code of Federal Regulations as follows:

PART 1236—PRUDENTIAL MANAGEMENT AND OPERATIONS STANDARDS

■ 1. The authority citation for part 1236 continues to read as follows:

Authority: 12 U.S.C. 4511, 4513(a) and (f), 4513b, and 4526.

■ 2. Revise § 1236.1 to read as follows:

§ 1236.1 Purpose.

This part addresses prudential management and operations standards that are required and authorized by 12 U.S.C. 4513b, including establishment of Standards by Federal Housing Finance Agency (FHFA) and the processes by which FHFA can notify a regulated entity or the Office of Finance of its failure to operate in accordance with a Standard and can direct the regulated entity or the Office of Finance to take corrective action. This part further specifies the possible consequences if any regulated entity or the Office of Finance fails to operate in accordance with an applicable Standard or otherwise fails to comply with this part.

■ 3. Revise § 1236.2 introductory text, remove the definition of ''Standards'', and add the definition of ''Standard(s)'' to read as follows:

§ 1236.2 Definitions.

Unless otherwise indicated, terms used in this part have the meanings that they have in part 1201 of this chapter, in the Safety and Soundness Act, 12 U.S.C. 4501 *et seq.,* or in the Bank Act, 12 U.S.C. 1421 *et seq.*

* * * * *

Standard(s) means any one (or more) of the prudential management and operations standards established by the Director pursuant to 12 U.S.C. 4513b(a). Standard includes the introductory statement of general responsibilities of boards of directors and senior management of the regulated entities set forth in the appendix to this part.

■ 4. Revise § 1236.3 to read as follows:

§ 1236.3 Prudential standards as regulations or guidelines.

(a) *Form.* As expressly authorized by 12 U.S.C. 4513b(a), FHFA may establish Standards as regulations or guidelines.

(b) *Standards established as guidelines.* Each Standard that has been established as a guideline is located in the appendix to this part. FHFA will provide public notice of, and seek public comment on, any Standard it plans to establish as a guideline, or on any material modification to any Standard established as a guideline. FHFA may revoke any Standard established as a guideline at any time by order or notice. Standards established as guidelines are subject to the remedial provisions of §§ 1236.4 and 1236.5.

(c) *Standards established as regulations.* When establishing a Standard as a regulation or amending such a Standard, FHFA shall follow applicable rulemaking procedures of the Administrative Procedure Act, 12 U.S.C. 553. Standards established as regulations may be set forth as subparts or provisions of this part; or as other parts or subparts, or as provisions of such other parts or subparts, of this chapter XII of title 12. When not set forth as a subpart of this part, the regulation or any provision thereof that is a Standard shall be identified as a Standard in the body of the regulation. Standards established as regulations are subject to this part, including the remedial provisions of §§ 1236.4 and 1236.5, and to the enforcement provisions of 12 U.S.C. chapter 46, subchapter III.

(d) *Conflicts.* In the case of a direct conflict between a Standard established as a guideline and any FHFA regulation, when it is not possible to comply with both that Standard and the FHFA regulation, the FHFA regulation shall control.

■ 5. Revise § 1236.4 to read as follows:

§ 1236.4 Failure to meet a Standard; corrective plans.

(a) *Determination.* FHFA may determine, based upon an examination, inspection, or any other information, that a regulated entity or the Office of Finance has failed to meet one or more of the Standards. Failure to meet any Standard may constitute an unsafe and unsound practice for purposes of the enforcement provisions of 12 U.S.C. chapter 46, subchapter III.

(b) *Submission of corrective plan.* When a regulated entity or the Office of Finance is required to submit a corrective plan, FHFA shall inform the regulated entity or the Office of Finance of that requirement by written notice, which shall also set forth FHFA's determination that the regulated entity or the Office of Finance has failed a particular Standard or Standards. FHFA shall require a regulated entity or the Office of Finance to submit a corrective plan if FHFA determines that the regulated entity or the Office of Finance has failed to meet a Standard established as a regulation. FHFA may require a regulated entity or the Office of Finance to submit a corrective plan for failure to meet a Standard established as a guideline.

(c) *Corrective plans*—(1) *Contents of plan.* A corrective plan shall be in writing and shall describe the actions the regulated entity or the Office of Finance will take to correct its failure(s) as determined by FHFA, and the time within which each action will be taken.

(2) *Filing deadline*—(i) *In general.* A regulated entity or the Office of Finance must file a corrective plan with FHFA within thirty (30) calendar days of being notified by FHFA of the requirement to file a corrective plan, unless FHFA notifies the regulated entity or the Office of Finance in writing that the plan must be filed within a different time period.

(ii) *Other plans or submissions.* If a regulated entity must file a capital restoration plan submitted pursuant to 12 U.S.C. 4622, it may submit the corrective plan required under this section as part of the capital restoration plan, subject to the deadline established in accordance with paragraph (c)(2)(i) of this section. If a regulated entity or the Office of Finance is operating under a cease-and-desist order entered into pursuant to 12 U.S.C. 4631 or 4632, or a formal or informal agreement, or must file a response to a report of examination or report of inspection, it may, with the permission of FHFA, submit the corrective plan required under this section as part of its compliance with that order, agreement, or response, subject to the deadline established in accordance with paragraph (c)(2)(i) of this section, but the corrective plan would not become a part of the order, agreement, or response. FHFA may also permit a regulated entity or the Office of Finance to submit a corrective plan required under this section as part of another type of required plan or submission by a regulated entity or the Office of Finance, as deemed appropriate by FHFA.

(d) *Amendment of corrective plan.* A regulated entity or the Office of Finance that is operating in accordance with an approved corrective plan may submit a written request to FHFA to amend the plan as necessary to reflect any changes in circumstance. Until such time that FHFA approves a proposed amendment, the regulated entity or the Office of Finance must continue to operate in accordance with the terms of the corrective plan as previously approved.

(e) *Review of corrective plans and amendments.* Within thirty (30) calendar days of receiving a corrective plan or proposed amendment to a plan, FHFA will notify the regulated entity or the Office of Finance in writing of its decision on the plan, will direct the regulated entity to submit additional information, or will notify the regulated entity in writing of any extended deadline for review that FHFA has established.

■ 6. Amend § 1236.5 by revising the introductory text to paragraph (a), paragraph (a)(6), the introductory text to paragraph (c)(1), paragraphs (c)(1)(i), (c)(2) through (4), paragraph (d), and the

introductory text to paragraph (e) to read as follows:

§ 1236.5 Failure to submit a corrective plan; noncompliance.

(a) *Remedies.* If a regulated entity or the Office of Finance fails to submit an acceptable corrective plan under § 1236.4(b), or fails in any material respect to implement or otherwise comply with an approved corrective plan, FHFA shall order the regulated entity or the Office of Finance to correct that deficiency, and may:

* * * * *

(6) Require the regulated entity or the Office of Finance to take any other action that the Director determines will better carry out the purposes of the statute by bringing the regulated entity or the Office of Finance into conformance with the Standards.

* * * * *

(c) * * *

(1) *Notice.* Except as provided in paragraph (c)(4) of this section, FHFA will notify a regulated entity or the Office of Finance in writing of FHFA's intent to issue an order requiring the regulated entity or the Office of Finance to correct its failure to submit or its failure in any material respect to implement or otherwise comply with an approved corrective plan. Any such notice will include:

(i) A statement that the regulated entity or the Office of Finance has failed to submit a corrective plan under § 1236.4, or has not implemented or otherwise has not complied in any material respect with an approved plan;

* * * * *

(2) *Response to notice.* A regulated entity or the Office of Finance may file a written response to a notice of intent to issue an order, which must be delivered to FHFA within fourteen (14) calendar days of the date of the notice, unless FHFA determines that a different time period is appropriate in light of the safety and soundness of the regulated entity or the Office of Finance or other relevant circumstances. The response should include:

(i) An explanation of why the regulated entity or the Office of Finance believes that the action proposed by FHFA is not an appropriate exercise of discretion;

(ii) Any recommended modification of the proposed order; and

(iii) Any other relevant information, mitigating circumstances, documentation or other evidence in support of the position of the regulated entity or the Office of Finance regarding the proposed order.

(3) *Failure to file response.* The failure of a regulated entity or the Office of Finance to file a written response within the specified time period will constitute a waiver of the opportunity to respond and will constitute consent to issuance of the order.

(4) *Immediate issuance of final order.* FHFA may issue an order requiring a regulated entity or the Office of Finance immediately to take actions to correct a Standards deficiency or to take or refrain from taking other actions pursuant to paragraph (a) of this section. Within fourteen (14) calendar days of the issuance of an order under this paragraph, or other time period specified by FHFA, a regulated entity or the Office of Finance may submit a written appeal of the order to FHFA. FHFA will respond in writing to a timely filed appeal within sixty (60) days after receiving the appeal. During this period, the order will remain in effect unless FHFA stays the effectiveness of the order.

(d) *Request for modification or rescission of order.* A regulated entity or the Office of Finance subject to an order under this part may submit a written request to FHFA for an amendment to the order to reflect a change in circumstance. Unless otherwise ordered by FHFA, the order shall continue in place while such a request is pending before FHFA.

(e) *Agency review and determination.* FHFA will respond in writing within thirty (30) days after receiving a response or amendment request, unless FHFA notifies the regulated entity or the Office of Finance in writing that it will respond within a different time period. After considering the response or amendment request from a regulated entity or the Office of Finance, FHFA may:

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■ 7. Amend the appendix to part 1236 by:

■ a. Revising the introductory text to the appendix;

■ b. Revising the introductory text and paragraphs 1. through 8. and 10. under the undesignated heading ''General Responsibilities of the Board of Directors and Senior Management'';

■ c. In Standard 1, revising paragraphs 1., 4., 5. through 14., and 16.;

■ d. In Standard 2, revising paragraphs 1., 3., 5. through 7., and 11.;

■ e. In Standard 8, revising paragraphs 1. through 3. and 7. through 12.; and

■ f. Revising Standard 10.

The revisions read as follows:

Appendix to Part 1236—Prudential Management and Operations Standards

The following provisions constitute the prudential management and operations standards established as guidelines pursuant to 12 U.S.C. 4513b(a). The General Responsibilities of the Board of Directors and Standards 1, 2, 8, and 10 apply to the Office of Finance as appropriate.

General Responsibilities of the Board of Directors and Senior Management

The following provisions address the general responsibilities of the boards of directors and senior management of the regulated entities as they relate to the matters addressed by each of the Standards, and the general responsibilities of the board of directors and senior management of the Office of Finance to the extent a particular Standard is applicable to the Office of Finance. The descriptions are not a comprehensive listing of the responsibilities of either the boards or senior management, each of whom have additional duties and responsibilities to those described in these Standards.

Responsibilities of the Board of Directors

With respect to the subject matter addressed by each applicable Standard, the board of directors of each regulated entity and of the Office of Finance is responsible for adopting business strategies and policies that are appropriate for the particular subject matter. The board should review all such strategies and policies periodically. It should review and approve all major strategies and policies at least annually and make any revisions that are necessary to ensure that such strategies and policies remain consistent with the overall business plan of the entity or the Office of Finance.

2. The board of directors is responsible for overseeing management of the regulated entity or the Office of Finance, which includes ensuring that management includes personnel who are appropriately trained and competent to oversee the operation of the regulated entity and the Office of Finance as it relates to the functions and requirements addressed by each applicable Standard, and that management implements the policies set forth by the board.

3. The board of directors is responsible for remaining informed about the operations and condition of the regulated entity or the Office of Finance, including operating consistently with the applicable Standards, and senior management's implementation of the strategies and policies established by the board of directors.

4. The board of directors must remain sufficiently informed about the nature and level of the regulated overall risk exposures of the entity or the Office of Finance, including, as applicable, market, credit, operational, and counterparty risk, so that it can understand the possible short- and long-term effects of those exposures on the financial health of the regulated entity, including the possible short- and long-term consequences, as applicable, to earnings, liquidity, and economic value. The board of directors should: establish the risk tolerances of the regulated entity or the Office of Finance and provide management with clear guidance regarding the level of acceptable risks; review the entire risk management framework of the regulated entity or the Office of Finance, including policies and

entity-wide risk limits at least annually; oversee the adequacy of the actions taken by senior management to identify, measure, manage, and control the risk exposures of the regulated entity or the Office of Finance; and ensure that management takes appropriate corrective measures whenever risk limit violations or breaches occur.

Responsibilities of Senior Management

5. With respect to the subject matter addressed by each applicable Standard, senior management is responsible for developing the policies, procedures and practices that are necessary to implement the business strategies and policies adopted by the board of directors. Senior management should ensure that such items are clearly written, sufficiently detailed, and are followed by all personnel. Senior management also should ensure that the regulated entity or the Office of Finance has personnel who are appropriately trained and competent to carry out their respective functions and that all delegated responsibilities are performed.

6. Senior management should ensure that the regulated entity or the Office of Finance has adequate resources, systems, and controls available to execute effectively the business strategies, policies, and procedures of the entity or the Office of Finance, including operating consistently with each of the applicable Standards.

7. Senior management should provide the board of directors with periodic reports relating to the condition and performance of the regulated entity or the Office of Finance, including the subject matter addressed by each of the applicable Standards, that are sufficiently detailed to allow the board of directors to remain fully informed about the business of the regulated entity or the Office of Finance.

8. Senior management should regularly review and discuss with the board of directors information regarding the risk exposures of the regulated entity or the Office of Finance that is sufficient in detail and timeliness to permit the board of directors to understand and assess the performance of management in identifying and managing the various risks to which the regulated entity or the Office of Finance is exposed.

Responsibilities of the Board of Directors and Senior Management

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10. The board of directors and senior management should ensure that the overall risk profile of the regulated entity or the Office of Finance is aligned with its mission objectives.

Standard 1—Internal Controls and Information Systems

Responsibilities of the Board of Directors

1. Regarding internal controls and information systems, the board of directors of each regulated entity and the Office of Finance should adopt appropriate policies, ensure personnel are appropriately trained and competent, approve and periodically review overall business strategies, approve the organizational structure, and assess the adequacy of senior management's oversight of this function.

* * * * *

Framework

4. Each regulated entity and the Office of Finance should have an adequate and effective system of internal controls, which should include a board approved organizational structure that clearly assigns responsibilities, authority, and reporting relationships, and establishes an appropriate segregation of duties that ensures that personnel are not assigned conflicting responsibilities.

5. Each regulated entity and the Office of Finance should establish appropriate internal control policies and should monitor the adequacy and effectiveness of its internal controls and information systems on an ongoing basis through a formal self-assessment process.

6. Each regulated entity and the Office of Finance should have an organizational culture that emphasizes and demonstrates to personnel at all levels the importance of internal controls.

7. Each regulated entity and the Office of Finance should address promptly any violations, findings, weaknesses, deficiencies, and other issues in need of remediation relating to the internal control systems.

Risk Recognition and Assessment

8. Each regulated entity and the Office of Finance should have an effective risk assessment process that ensures that management recognizes and continually assesses all material risks, including credit risk, market risk, interest rate risk, liquidity risk, and operational risk.

Control Activities and Segregation of Duties

9. Each regulated entity and the Office of Finance should have an effective internal control system that defines control activities at every business level.

10. The control activities of each regulated entity and the Office of Finance should include:

a. Board of directors and senior management reviews of progress toward goals and objectives;

b. Appropriate activity controls for each business unit;

c. Physical controls to protect property and other assets and limit access to property and systems;

d. Procedures for monitoring compliance with exposure limits and follow-up on non-compliance;

e. A system of approvals and authorizations for transactions over certain limits; and

f. A system for verification and reconciliation of transactions.

Information and Communication

11. Each regulated entity and the Office of Finance should have information systems that provide relevant, accurate and timely information and data.

12. Each regulated entity and the Office of Finance should have secure information systems that are supported by adequate contingency arrangements.

13. Each regulated entity and the Office of Finance should have effective channels of communication to ensure that all personnel understand and adhere to policies and procedures affecting their duties and responsibilities.

Monitoring Activities and Correcting Deficiencies

14. Each regulated entity and the Office of Finance should monitor the overall effectiveness of its internal controls and key risks on an ongoing basis and ensure that business units and internal and external audit conduct periodic evaluations.

* * * * *

Applicable Laws, Regulations, and Policies

16. Each regulated entity and the Office of Finance should comply with all applicable laws, regulations, and supervisory guidance (*e.g.,* advisory bulletins) governing internal controls and information systems.

Standard 2—Independence and Adequacy of Internal Audit Systems

Audit Committee

1. The board of directors of each regulated entity and the Office of Finance should have an audit committee that exercises proper oversight and adopts appropriate policies and procedures designed to ensure the independence of the internal audit function. The audit committee should ensure that the internal audit department includes personnel who are appropriately trained and competent to oversee the internal audit function.

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3. The audit committee of the board of directors is responsible for monitoring and evaluating the effectiveness of the internal audit function of each regulated entity and the Office of Finance.

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Internal Audit Function

5. Each regulated entity and the Office of Finance should have an internal audit function that provides for adequate testing of the system of internal controls.

6. Each regulated entity and the Office of Finance should have an independent and objective internal audit department that reports directly to the audit committee of the board of directors.

7. The internal audit department of each regulated entity and the Office of Finance should be adequately staffed with properly trained and competent personnel.

* * * * *

Applicable Laws, Regulations, and Policies

11. Each regulated entity and the Office of Finance should comply with applicable laws, regulations, and supervisory guidance (*e.g.,* advisory bulletins) governing the independence and adequacy of internal audit systems.

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Standard 8—Overall Risk Management Processes

Responsibilities of the Board of Directors

1. Regarding overall risk management processes, the board of directors is

responsible for overseeing the process, ensuring senior management are appropriately trained and competent, ensuring processes are in place to identify, manage, monitor and control risk exposures (this function may be delegated to a board appointed committee), approving all major risk limits, and ensuring incentive compensation measures for senior management capture a full range of risks to the regulated entity or the Office of Finance.

Responsibilities of the Board and Senior Management

2. Regarding overall risk management processes, the board of directors and senior management should establish and sustain a culture that promotes effective risk management. This culture includes timely, accurate and informative risk reports, alignment of the overall risk profile of the regulated entity or the Office of Finance with its mission objectives, and the annual review of comprehensive self-assessments of material risks.

Independent Risk Management Function

3. A regulated entity or the Office of Finance should have an independent risk management function, or unit, with responsibility for risk measurement and risk monitoring, including monitoring and enforcement of risk limits.

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Risk Measurement, Monitoring, and Control

7. Each regulated entity and the Office of Finance should measure, monitor, and control its overall risk exposures, reviewing, as applicable, market, credit, liquidity, and operational risk exposures on both a business unit (or business segment) and enterprise-wide basis.

8. Each regulated entity and the Office of Finance should have the risk management systems to generate, at an appropriate frequency, the information needed to manage risk. As applicable, such systems should include systems for market, credit, operational, and liquidity risk analysis, asset and liability management, regulatory reporting, and performance measurement.

9. Each regulated entity and the Office of Finance should have a comprehensive set of risk limits and monitoring procedures to ensure that risk exposures remain within established risk limits, and a mechanism for reporting violations and breaches of risk limits to senior management and the board of directors.

10. Each regulated entity and the Office of Finance should ensure that it has sufficient controls around risk measurement models to ensure the completeness, accuracy, and timeliness of risk information.

11. Each regulated entity and the Office of Finance should have adequate and well-tested disaster recovery and business resumption plans for all major systems and have remote facilitates to limit the impact of disruptive events.

Applicable Laws, Regulations, and Policies

12. As applicable, each regulated entity and the Office of Finance should comply with all applicable laws, regulations, and supervisory guidance (*e.g.,* advisory bulletins) governing the management of risk.

* * * * *

Standard 10—Maintenance of Adequate Records

1. Each regulated entity and the Office of Finance should maintain financial records in compliance with Generally Accepted Accounting Principles (GAAP), FHFA guidelines, and applicable laws and regulations.

2. Each regulated entity and the Office of Finance should ensure that assets are safeguarded and financial and operational information is timely and reliable.

3. Each regulated entity and the Office of Finance should have a records retention program consistent with laws and corporate policies, including accounting policies, as well as personnel that are appropriately trained and competent to oversee and implement the records management plan.

4. Each regulated entity and the Office of Finance, with oversight from its board of directors, should conduct a review and approval of the records retention program and records retention schedule for all types of records at least once every two years.

5. Each regulated entity and the Office of Finance should ensure that reporting errors are detected and corrected in a timely manner.

6. Each regulated entity and the Office of Finance should comply with all applicable laws, regulations, and supervisory guidance (*e.g.,* advisory bulletins) governing the maintenance of adequate records.

Sandra L. Thompson,

Director, Federal Housing Finance Agency.

[FR Doc. 2023–09320 Filed 5–3–23; 8:45 am]

BILLING CODE 8070–01–P

SECURITIES AND EXCHANGE COMMISSION

17 CFR Parts 232 and 240

[Release Nos. 33–11180; 34–97405; File No. S7–06–22]

RIN 3235–AM93

Reopening of Comment Period for Modernization of Beneficial Ownership Reporting

AGENCY: Securities and Exchange Commission.

ACTION: Proposed rule; reopening of comment period.

SUMMARY: The Securities and Exchange Commission (''Commission'') is reopening the comment period for its proposal, *Modernization of Beneficial Ownership Reporting,* Release No. 33–11030, (Feb. 10, 2022) (''Proposing Release''). In the Proposing Release, the Commission proposed to amend certain rules that govern beneficial ownership reporting (''Proposed Amendments''). The Proposed Amendments would modernize the filing deadlines for initial and amended beneficial ownership reports filed on Schedules 13D and 13G. The Proposed Amendments also would deem holders of certain cash-settled derivative securities as beneficial owners of the reference equity securities and clarify the disclosure requirements of Schedule 13D with respect to derivative securities. In addition, the Proposed Amendments would clarify and affirm the operation of the beneficial ownership reporting rules as applied to two or more persons that form a group under the Securities Exchange Act of 1934, and provide new exemptions to permit such persons to communicate and consult with each other, jointly engage issuers, and execute certain transactions without being subject to regulation as a group. Finally, the Proposed Amendments would require that Schedules 13D and 13G be filed using a structured, machine-readable data language. The Commission is reopening the comment period to allow interested persons an opportunity to comment on the additional analysis and data contained in a staff memorandum that was added to the public comment file on April 28, 2023.

DATES: The comment period for the Proposing Release published March 10, 2022, at 87 FR 13846, is reopened. Comments should be received on or before June 27, 2023.

ADDRESSES: Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*https://www.sec.gov/rules/submitcomments.htm*); or

Paper Comments

- Send paper comments to Vanessa A. Countryman, Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number S7–06–22. 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 of submission. The Commission will post all submitted comments on the Commission's website (*https://www.sec.gov/rules/proposed.shtml*). Comments also are 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

a.m. and 3 p.m. Operating conditions may limit access to the Commission's Public Reference Room. 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.

Studies, memoranda, or other substantive items may be added by the Commission or staff to the comment file during this rulemaking. A notification of the inclusion in the comment file of any such materials will be made available on the our website. To ensure direct electronic receipt of such notifications, sign up through the ''Stay Connected'' option at *www.sec.gov* to receive notifications by email.

FOR FURTHER INFORMATION CONTACT: Nicholas Panos, Senior Special Counsel, and Valian Afshar, Special Counsel, in the Office of Mergers and Acquisitions, Division of Corporation Finance, at (202) 551–3440, U.S. Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549.

SUPPLEMENTARY INFORMATION: This release relates to the Commission's Proposed Amendments to 17 CFR 240.13d–1 (''Rule 13d–1''), 17 CFR 240.13d–2 (''Rule 13d–2''), 17 CFR 240.13d–3 (''Rule 13d–3''), 17 CFR 240.13d–5 (''Rule 13d–5''), 17 CFR 240.13d–6 (''Rule 13d–6'') and 17 CFR 240.13d–101 (''Rule 13d–101''), under the Securities Exchange Act of 1934 [1] (''Exchange Act'').[2] We also are proposing amendments to 17 CFR 232.13 (''Rule 13 of Regulation S–T'') and 17 CFR 232.201 (''Rule 201 of Regulation S–T'') under 17 CFR part 232 (''Regulation S–T'').[3]

I. Background

As described more fully in the Proposing Release, the Commission proposed to amend certain rules to modernize the beneficial ownership reporting requirements.[4] The Proposed Amendments would, among other things:

1. Revise the Rule 13d–1(a) filing deadline for the initial Schedule 13D to five days after the date on which a person acquires more than 5% of a covered class of equity securities; [5] and amend Rules 13d–1(e), (f), and (g) to shorten the filing deadline for the initial Schedule 13D required to be filed by certain persons who forfeit their eligibility to report on Schedule 13G in lieu of Schedule 13D to five days after the event that causes the ineligibility;

2. Revise the filing deadline under Rule 13d–2(a) for amendments to Schedule 13D to one business day after the date on which a material change occurs;

3. Amend Rules 13d–1(b) and (d) to shorten the deadline for the initial Schedule 13G filing for Qualified Institutional Investors [6] and Exempt Investors to within five business days after the last day of the month in which beneficial ownership first exceeds 5% of a covered class; and amend the deadline in Rule 13d–1(c), which permits Passive Investors to file an initial Schedule 13G in lieu of Schedule 13D within 10 days after acquiring beneficial ownership of more than 5% of a covered class, to five days after the date of such an acquisition;

4. Revise the filing deadline for amendments to Schedule 13G in Rule 13d–2(b) to five business days after the end of the month in which a reportable change occurs; [7] and amend Rule 13d–2(c) to shorten the filing deadline for Schedule 13G amendments filed pursuant to that provision to five days after the date on which beneficial ownership first exceeds 10% of a covered class, and thereafter upon any deviation by more than 5% of the covered class, with these requirements applying if the thresholds were crossed at any time during a month; [8]

5. Add new paragraph (e) to Rule 13d–3 to deem holders of certain cash-settled derivative securities as beneficial owners of the reference covered class and amend Item 6 to Schedule 13D to remove any implication that a person is not required to disclose interests in all derivative securities that use a covered class as a reference security;

6. Amend Rule 13d–5 to align the text of that rule, as applicable to two or more persons who act as a group, with the statutory language in Sections 13(d)(3) and (g)(3) of the Exchange Act and add a new provision in Rule 13d–5 that would affirm that if a person, in advance of filing a Schedule 13D, discloses to any other person that such filing will be made with the purpose of causing that other person to acquire securities in the covered class for which the Schedule 13D will be filed and such other person acquires securities in the covered class, then those persons are deemed to have formed a group within the meaning of Section 13(d)(3);

7. Add new Rule 13d–6(c), which would set forth the circumstances under which two or more persons may communicate and consult with one another and engage with an issuer without concern that they will be subject to regulation as a group with respect to the issuer's equity securities; [9] and

8. Require that Schedules 13D and 13G be filed using a structured, machine-readable data language.[10]

II. Reopening of Comment Period

Since the publication of the Proposing Release, the staff of the Division of Economic and Risk Analysis has prepared a memorandum that provides supplemental data and analysis related to certain economic effects of the Proposed Amendments.[11]

[1] 15 U.S.C. 78a *et seq.*

[2] Unless otherwise noted, when we refer to the Exchange Act, or any paragraph of the Exchange Act, we are referring to 15 U.S.C. 78a *et seq.* of the United States Code, at which the Exchange Act is codified, and when we refer to rules under the Exchange Act, or any paragraph of these rules, we are referring to title 17, part 240 of the Code of Federal Regulations [17 CFR part 240], in which these rules are published.

[3] Unless otherwise noted, when we refer to Regulation S–T, or any paragraph of the rules thereunder, we are referring to title 17, part 232 of the Code of Federal Regulations [17 CFR part 232], in which these rules are published.

[4] *See Modernization of Beneficial Ownership Reporting,* Release Nos. 33–11030; 34–94211 (Feb. 10, 2022) [87 FR 13846 (Mar. 10, 2022)].

[5] As used in this release, a ''covered class'' is a class of equity securities described in Section 13(d)(1) of the Exchange Act and Rule 13d–1(i) and generally means, with limited exception, a voting class of equity securities registered under Section 12 of the Exchange Act.

[6] Capitalized terms not defined in this release have the meaning set forth in the Proposing Release.

[7] The Proposed Amendments also would revise Rule 13d–2(b) to require that an amendment to a Schedule 13G be filed only if a ''material change'' occurs instead of an amendment obligation arising for Schedule 13G filers upon the occurrence of ''any change'' in the facts previously reported regardless of the materiality of such change.

[8] The Proposed Amendments also would revise the Rule 13d–2(d) filing deadline for Schedule 13G amendments filed pursuant to that provision from a ''promptly'' standard to one business day after the date on which beneficial ownership exceeds 10% of a covered class, and thereafter upon any deviation by more than 5% of the covered class.

[9] The Proposed Amendments also would add new Rule 13d–6(d) to set forth the circumstances under which two or more persons may enter into an agreement governing a derivative security in the ordinary course of business without concern that they will become subject to regulation as a group with respect to the derivative's reference equity securities.

[10] The Proposed Amendments also would: (1) revise Rule 13(a) of Regulation S–T to permit Schedules 13D and 13G, and any amendments thereto, that are submitted by direct transmission on or before 10 p.m. eastern time on a given business day to be deemed to have been filed on the same business day to provide additional time for beneficial owners to prepare and submit their Schedule 13D or Schedule 13G filings; and (2) amend Rule 201(a) of Regulation S–T to make the temporary hardship exemption set forth in that rule—which applies to unanticipated technical difficulties preventing the timely preparation and submission of an electronic filing—unavailable to Schedules 13D and 13G filings.

[11] Memorandum of the Staff of the Division of Economic and Risk Analysis, *Supplemental data*

Continued

We believe that the information presented in the memorandum has the potential to be informative for purposes of further evaluating the Proposed Amendments. We are, therefore, reopening the comment period to permit interested parties to comment on the staff memorandum, which has been included in the comment file. We encourage any interested person to submit comments, including comments on the data or methodology used in the analysis contained in the memorandum and on how this analysis should inform our consideration of the benefits and costs of the Proposed Amendments. If any commenters who have already submitted a comment letter wish to provide supplemental or updated comments, we encourage them to do so. Comments are of particular assistance if accompanied by supporting data and analysis of the issues addressed in those comments.

Dated: April 28, 2023.

By the Commission.

Vanessa A. Countryman,

Secretary.

[FR Doc. 2023–09454 Filed 5–3–23; 8:45 am]

BILLING CODE 8011–01–P

and analysis on certain economic effects of proposed amendments regarding the reporting of beneficial ownership (Apr. 28, 2023), *available at https://www.sec.gov/comments/s7-06-22/s70622.htm.*

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 117

[Docket No. USCG–2023–0187]

RIN 1625–AA09

Drawbridge Operation Regulation; Black River, Lorain, OH

AGENCY: Coast Guard, DHS.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard proposes to modify the operating schedule that governs the Charles Berry Bridge, mile 0.6, and the Norfolk Southern Railroad Bridge, mile 1.2, both over the Black River. The regulation has not been updated since 1986. The Coast Guard's proposed revisions will ensure the needs of all modes of transportation are being met.

DATES: Comments and relate material must reach the Coast Guard on or before July 3, 2023.

ADDRESSES: You may submit comments identified by docket number USCG–2023–0187 using Federal Decision-Making Portal at *https://www.regulations.gov.*

See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section below for instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions on this proposed rule, call or email If you have questions on this temporary final rule, call or email Mr. Lee D. Soule, Bridge Management Specialist, Ninth Coast Guard District; telephone 216–902–6085, email *Lee.D.Soule@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
CRSTF Cuyahoga River Safety Task Force
DHS Department of Homeland Security
FR Federal Register
IGLD International Great Lakes Datum of 1985
LWD Low Water Datum based on IGLD85
OMB Office of Management and Budget
PAWSA Ports and Waterway Safety Assessment
NPRM Notice of Proposed Rulemaking
§ Section
U.S.C. United States Code

II. Background, Purpose, and Legal Basis

The Black River is a tributary of Lake Erie, created at the confluence of the east and west branches of the Black River at Elyria, Ohio. It then travels 12 miles to empty into Lake Erie at Lorain, Ohio. Large commercial vessels and powered and non-powered recreational vessels use the river. Most of the recreational vessels using the waterway moor in the outer harbor basin or launch from one of the two municipal boat ramp locations. The head of navigation is located at approximate river mile 3, just past the former U.S. Steel Dock on the south side of Lorain. The river continues to Elyria, Ohio with water depths reported less than 6-feet based on LWD. There are no detours available for vessels to avoid passing through the bridges.

Three bridges cross the river at Lorain, two drawbridges and one fixed. The Charles Berry Bridge, mile 0.6, is a double leaf bascule bridge that provides a horizontal clearance of 148-feet and a vertical clearance of 33-feet at center above LWD in the closed position and an unlimited clearance in the open position. The Norfolk Southern Railroad Bridge, mile 1.2, is a vertical lift bridge that provides a horizontal clearance of 205-feet and a vertical clearance of 35-feet in the closed position above LWD and 123-feet in the open position above LWD. The Lofton Henderson Memorial Bridge, mile 2, is a fixed bridge that provides a horizontal clearance of 256-feet and a vertical clearance of 97-feet based on LWD.

The Charles Berry Bridge, mile 0.6, is governed by 33 CFR 117.850, allowing the bridge to only open twice an hour and operate in evenings with a 2-hour advance notice. The Norfolk Southern Railroad Bridge, mile 1.2, does not have operating regulations.

III. Discussion of Proposed Rule

On August 7, 1986, we published in the **Federal Register** (51 FR 28380), on request of the Lorain County Engineer, to limit bridge movements and prevent traffic congestion at the bridge. In the intervening 37 years, several riverfront businesses that received maritime traffic have closed and/or been removed, to include two steel mills at the head of navigation, an iron ore terminal, a coal fired power plant, and Ford Lorain Assembly Plant. These changes have impacted traffic at the Charles Berry Bridge, mile 0.6, reducing the number of vessels visiting the harbor and reducing the number of workers traveling to and from work over the bridges.

According to the Ohio Department of Transportation Data Management System, since 1986, vehicle crossings at the Charles Berry Bridge, mile 0.6, have decreased year over year. In 2022, the annual daily average vehicle crossing was 2,161 vehicles, a decline of almost 45% in vehicle crossings since 1986.

The Charles Berry Bridge, mile 0.6, provides 33-feet of vertical clearance above LWD and the current regulation requires the bridge to open on signal for commercial vessels. Accordingly, the only vessels the regulation restricts is the sailing population. Arguably, the Coast Guard should have amended the regulations after the lakeside marina opened in 1989, moving most of the recreational vessels, including sailing vessels, from the docks in the Lorain River to the harbor north of the bridges.

The primary purpose of the current bridge regulation was to prevent vehicle congestion at the bridge. However, with the reduction of vehicles and vessels transiting the river on a regular basis, the calculus has shifted, and the Coast Guard proposes to revise the regulation to remove the burden from the recreational vessels using the waterway.

We are proposing to remove the restricted bridge opening times of on the hour and half hour. We also propose to remove the restrictions of 8 a.m., 3 p.m., 4 p.m., and 5 p.m. because the traffic counts do not support a significant gathering of vehicles at the bridge during those times.

We informally asked local stakeholders for comments, and we received one comment requesting to keep the current winter operations as written.

In 2022, the Coast Guard received three reports of the drawtender delaying the opening of the bridge: two reports against the highway bridge and one against the railroad bridge; all three delays have been attributed to communications problems. The Coast Guard hopes that it can resolve the communications issue by proposing that both movable bridges operate a Radio Telephone and telephone. Both bridges would be required to post these requirements with winter hours at the bridge under § 117.55.

V. Regulatory Analyses

We developed this proposed rule after considering numerous statutes and Executive Orders related to rulemaking. Below we summarize our analyses based on these statutes and Executive Orders.

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 is not significant since it removes the burdens placed on the boaters.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980 (RFA), 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 bridge may be small entities, for the reasons stated in section IV.A above this proposed rule would 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 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 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 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 call for no 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 contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

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 will not result in such an expenditure, we do discuss the effects of this proposed rule elsewhere in this preamble.

F. Environment

We have analyzed this rule under Department of Homeland Security Management Directive 023–01, Rev.1, associated implementing instructions, and Environmental Planning Policy COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA)(42 U.S.C. 4321–4370f). The Coast Guard has 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 promulgates the operating regulations or procedures for drawbridges. Normally such actions are categorically excluded from further review, under paragraph L49, of Chapter 3, Table3–1 of the U.S. Coast Guard Environmental Planning Implementation Procedures.

Neither a Record of Environmental Consideration nor a Memorandum for the Record are required for this rule. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

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–2023–0187 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 your material cannot be submitted using *https://www.regulations.gov,* contact the person

in the **FOR FURTHER INFORMATION CONTACT** section of this document 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. 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. Additionally, if you go to the online docket and sign up for email alerts, you will be notified when comments are posted, or a final rule is published of any posting or updates to the docket.

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 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 117 Bridges.

For the reasons discussed in the preamble, the Coast Guard proposes to amend 33 CFR part 117 as follows:

PART 117—DRAWBRIDGE OPERATION REGULATIONS

■ 1. The authority citation for part 117 continues to read as follows:

Authority: 33 U.S.C. 499; 33 CFR 1.05–1; and DHS Delegation No. 00170.1, Revision No. 01.3.

■ 2. Revise § 117.850 Black River to read as follows:

(a) The Charles Berry Bridge, mile 0.6, will open on signal, except from January 1 through March 31 when the bridge will open if a 12-hour advance notice is given. The bridge will operate and maintain a VHF–FM Marine Radio and a telephone number.

(b) The Norfolk Southern Railroad Bridge, mile 1.2, will open on signal, except from January 1 through March 31 when the bridge will open if a 12-hour advance notice is given. The bridge will operate and maintain a VHF–FM Marine Radio and a telephone number.

M. J. Johnston

Rear Admiral, U.S. Coast Guard, Commander, Ninth Coast Guard District.

[FR Doc. 2023–09515 Filed 5–3–23; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2023–0075]

RIN 1625–AA00

Safety Zones; Recurring Fireworks Displays and Swim Events in Coast Guard Sector New York Zone

AGENCY: Coast Guard, DHS.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard is proposing to revise its regulations for permanent safety zones in the Coast Guard Sector New York Captain of the Port Zone for recurring fireworks displays and swim events. Our proposed revision would update the list of events, alter the means of notification, and clarify the function of these safety zone regulations. The establishment of the proposed safety zones is necessary to protect event participants, waterway users, and vessels from the potential hazards associated with these recurring organized water events. When subject to enforcement, no person is authorized to access the proposed safety zones without permission from the Captain of the Port (COTP) or the COTP's 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 5, 2023.

ADDRESSES: You may submit comments identified by docket number USCG–2023–0075 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 contact MSTC Stacy Stevenson, Waterways Management Division, U.S. Coast Guard by telephone at 718–354–4197 or email at *D01-SMB-SecNY-Waterways@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
COTP Captain of the Port New York Zone
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

Swim events and fireworks displays are held on an annual recurring basis on the navigable waters within the Coast Guard Sector New York Captain of the Port Zone. The Coast Guard has established safety zones for some of these annually recurring events to ensure the protection of the maritime public and event participants from associated potential hazards.

The current list of annual and recurring safety zones in the Captain of the Port New York Zone (COTP) appears in 33 CFR 165.160 in Tables 1 and 2, for fireworks displays and swim events, respectively. Those tables were established by a final rule entitled ''Special Local Regulations and Safety Zones; Recurring Events in Captain of the Port New York Zone'' published in the **Federal Register** on November 9, 2011 (76 FR 69613).

The Coast Guard proposes to amend and update the safety zone regulations in 33 CFR 165.160 in Tables 1 and 2 to include the most up-to-date list of recurring safety zones for events held on navigable waters within the COTP. These events include fireworks displays and swim events that require a limited access area to restrict vessel traffic for safety purposes. The current lists in Tables 1 and 2 need to be amended to provide new information on existing safety zones, to add new safety zones, and to remove safety zones that are no longer required. The proposed rule would also consolidate all barge-based fireworks displays in Table 1 to section 165.160 to one row encompassing the COTP in its entirety, and replace separate entries for events with fixed locations.

This proposed rule would also change the parameters of the safety zone area for swim events in Table 2 to 33 CFR 165.160 from all navigable waters within a 100-yard radius of each participating swimmer, as listed in the initial rule (76 FR 69613), to geographic coordinates that encompass the entire swim course. The COTP has determined that it is in the interest of safety for participants of swim events and other waterway users to establish a safety zone around the pre-determined course

vice the individual swimmer to better address and provide notice of potential hazards.

Lastly, this rulemaking amends section 165.160 to reorganize the text to a more understandable format. The phone number of the Sector New York Command Center is updated. The method to announce the enforcement details of the safety zones in Tables 1 and 2 to 33 CFR 165.160 is proposed to be changed from Notice of Enforcement in the **Federal Register** to be by marine broadcasts, local notice to mariners, local news media, distribution in leaflet form, or by an on-scene oral notice.

The purpose of this rulemaking is to ensure the safety of vessels, event participants, and the navigable waters before, during, and after a scheduled event. The Coast Guard is proposing this rulemaking under authority in 46 U.S.C. 70034.

The Coast Guard encourages the public to participate in this proposed rulemaking through the comment process so that any necessary changes can be identified and implemented in a timely and efficient manner. The Coast Guard will address all public comments accordingly, whether through response, additional revision to the regulation, or otherwise.

III. Discussion of Proposed Rule

The revision of Table 1 and Table 2 to section 165.160 would establish recurring safety zones in the COTP that will prohibit entry into those safety zones without permission of the Captain of the Port to protect spectators, mariners, and other persons and property from potential hazards presented during the firework display or swim event associated with the safety zone.

The safety zones in Table 1 to section 165.160 for fireworks displays will be subject to enforcement for approximately 1 hour between 6 p.m. until 1 a.m. when either—

- a barge with a ''Fireworks—Stay Away'' sign on the port and starboard side is on-scene, or
- a ''Fireworks—Stay Away'' sign is posted on land adjacent to the shoreline, in a location listed in the Table 1 to section 165.160.

This proposed rule would update Table 1 section 165.160 to consolidate all fireworks displays launched from a barge location to one consolidated row, removing entries 2.1–2.5, 2.8–2.15, 3.1–3.5, 3.7–3.10, 3.12–3.14, 4.1–4.3, 5.1–5.15, 6.1, and 7.1–7.3. This entry is proposed as follows:

TABLE 1 TO SECTION 165.160

1.0 Event	Location [1]
1.4 Barge Based Fireworks Displays	All waters within the Sector New York COTP Zone within a 500-yard radius of a firework barge or barges used during the storage, preparation, and launching of fireworks.

[1] All coordinates listed in Table 1 to section 165.01–165.160 reference Datum NAD 1983.

This proposed rule also removes the following safety zones from the existing Table 1 to section 165.160: entry 2.6, Coney Island Safety Zone, entry 3.11, Orchard Beach, The Bronx Safety Zone, entry 3.14 Echo Bay, Western Long Island Sound Safety Zone, and entry 4.4 Seaport, East River Safety Zone.

We are proposing to replace Table 1 to section 165.160 with the following Table 1:

1.0 Event	Location [1]
1.1 Twin Island, Long Island Sound Safety Zone	Launch Site: A land shoot located on the east end of Orchard Beach, NY, in approximate position 40°52′10″ N, 073°47′07″ W. This Safety Zone includes navigable waters within a 200-yard radius from the launch site.
1.2 Arthur Kill, Elizabeth, NJ Safety Zone	Launch Site: A land shoot located in Elizabeth, NJ, in approximate position 40°38′50″ N, 074°10′58″ W. This Safety Zone includes navigable waters within a 150-yard radius from the launch site.
1.3 Wards Island, East River, NY, Safety Zone	Launch Site: A land shoot located on Wards Island in approximate position 40°46′57″ N 073°55′28″ W, approximately 330 yards north of the Robert F. Kennedy Bridge (Triborough Bridge). This Safety Zone includes navigable waters within a 200-yard radius from the launch site.
1.4 Barge Based Fireworks Displays	All waters within the Sector New York COTP Zone within an area up to a 500-yard radius of a firework barge or barges used during the storage, preparation, and launching of fireworks.

[1] All coordinates listed in Table 1 to section 165.01–165.160 reference Datum NAD 1983.

This rule would also completely replace Table 2 to section 165.160 with new swim events and their respective locations. The area for these safety zones is also more specifically defined through coordinates to encompass the event course as opposed to a zone within a 100-yard radius of each participating swimmer as it was previously defined in Table 2 to section 165.160. Using coordinates to clearly identify the area in and around the pre-determined courses that the participating swimmers will stay within increases their safety and the safety of others using the waterway by providing sufficient notice of enforced areas.

SWIM EVENTS—TABLE 2 TO SECTION 165.160

1.0 Event	Hudson river upper bay [2]
1.1 Hudson River, Ulster, NY, Swim	Date: The first weekend after the 4th of July. Location: The safety zone includes all navigable waters of the Hudson River in the vicinity of Ulster Landing, bound by the following coordinates: 42°00′03.7″ N, 073°56′43.1″ W, thence to 41°59′52.5″ N, 073°56′34.2″ W, to 42°00′15.1″ N, 073°56′25.2″ W, to 42°00′05.4″ N, 073°56′41.9″ W, thence along the shoreline to the point of origin.
1.2 Hudson River, Nyack to Kingsland Point Swim.	Date: 2nd weekend in September Location: The safety zone includes all navigable waters of the Hudson River between Nyack, NJ and the Tarrytown Lighthouse bound by the following coordinates: 41°05′10.7″ N, 073°55′03″ W, thence to 41°05′02″ N, 073°52′25″ W, to 41°05′19″ N, 073°52′22″ W, to 41°05′25″ N, 073°54′51″ W, thence along the shoreline to the point of origin.
1.3 Navy Seal Swim, New York Harbor.	Date: One Saturday or Sunday in August Location: The safety zone includes all navigable waters bound by the following coordinates: 40°41′26″ N, 74°03′17″W,thence to 40°41′02″ N, 74°02′25″W, to 40°41′40″ N, 74°02′00″W, to 40°42′25″ N, 74°01′08″W, to 40°42′28″ N, 74°01′07″W, to 40°41′57″ N, 74°02′07″W, to 40°41′40″ N, 74°02′30″W, to 40°41′24″ N, 74°02′27″W, to 40°41′12″ N, 74°02′38″W, to 40°41′29″ N, 74°03′15″W, thence back to the point of origin.
1.4 Hudson River, Newburgh to Beacon Swim.	Date: One Saturday or Sunday in July Location: The safety zone includes all navigable waters of the Hudson River between Newburgh and Beacon, NY bound by the following coordinates: 41°30′24.2″ N, 074°0′17.4″ W, thence to 41°30′27.8″ N, 073°59′16.8″ W, to 41°30′11.6″ N, 073°59′19.9″ W, to 41°30′03.4″ N, 074°0′17.2″ W, thence north along the shoreline to the point of origin.
1.5 Long Island Sound, Horseshoe Harbor Swim.	Date: 4th weekend in July and 2nd weekend in August. Location: The safety zone includes all navigable waters of the Long Island Sound bound by the following coordinates: 40°55′32″ N, 73°44′37″ W, thence southeast to 40°55′28″ N, 73°44′14″ W, to 40°55′01″ N, 73°43′59″ W, to 40°54′01″ N, 73°44′17″ W, to 40°54′48″ N, 73°45′10″ W, thence along the shoreline back to the point of origin.
1.6 New York Harbor, Liberty Island to Morris Canal Swim.	Date: One Weekend in July Location: The safety zone includes all navigable waters of the New York Harbor bound by the following coordinates: 40°41′27″ N, 74°02′25″ W, thence to 40°41′22″ N, 74°02′13″ W, to 40°41′36″ N, 74°02′04″ W, to 40°42′39″ N, 74°01′42″ W, to 40°42′42″ N, 74°02′05″ W, to 40°42′31″ N, 74°01′55″ W, thence back to the point of origin.

[2] All coordinates listed in Table 2 to section 165.01–165.160 reference Datum NAD 1983.

This proposed regulation would prevent vessels from transiting areas specifically designated as safety zones during the periods they are subject to enforcement. This is to ensure the protection of the maritime public and event participants from the hazards associated with the listed organized water events. Only event sponsors, designated participants of swim events, and official patrol vessels would be allowed to enter safety zones without needing to seek permission. Spectators and other vessels not registered as swim event participants may not enter the safety zones without the permission of the COTP or the Designated Representative.

The proposed rule also reorganizes the text of section 165.160 be more understandable to the reader. The phone number of the Sector New York Command Center is updated to 718–354–4356. Lastly, the prior rule making established that the exact dates and times of the enforcement period for the safety zones in Tables 1 and 2 to 165.160 would be through a Notice of Enforcement in the **Federal Register**. This proposed rule updates the method to provide notice regarding the enforcement location, time, date, and any alterations to be conducted via marine broadcasts, local notice to mariners, local news media, distribution in leaflet form, or by an on-scene oral notice.

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. Below we summarize our analyses based on a number of these statutes and Executive orders as well as 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 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 ability of other waterway users to safely transit around the safety zones in many cases, and the size and duration of the safety zones would impact a small, designated area of the waterway for a relatively short period of time. Moreover, the Coast Guard would notify mariners of the enforcement via marine broadcasts, local notice to mariners, local news media, distribution in leaflet form, by an on-scene oral notice, or signage as appropriate. The rule would also allow vessels to seek permission to enter the zone if necessary.

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 proposed rule would 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 person listed in the **FOR FURTHER INFORMATION CONTACT** section.

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 is for the establishment of safety zones located in the immediate vicinity of various marine events and that will each be enforced for a relatively short duration. Normally such actions are 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–2023–0075 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. 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. Revise § 165.160 to read as follows:

§ 165.160 Safety Zones; Recurring Fireworks Displays and Swim Events Held in Coast Guard Sector New York Zone.

(a) *Regulations.* The general regulations in subpart C of this part as well as the following regulations apply to the safety zones associated with the recurring fireworks displays and swim events listed in Tables 1 or 2 to this section, respectively.

(1) Under the general safety zone regulations in subpart C of this part, no person may enter the safety zone described in Table 1 or 2 of this section unless authorized by the Captain of the Port (COTP) or the COTP's Designated Representative.

(2) To seek permission to enter the designated safety zone, contact the COTP or the COTP's Designated Representative via VHF–FM Marine Channel 16, or by contacting the Coast Guard Sector New York command center at 718–354–4356.

(3) Event organizers must ensure that fireworks barges have signage on their port and starboard side labeled ''Fireworks—Stay Away''. This sign will consist of 10- inch-high by 1.5-inch-wide red lettering on a white background.

(4) Shore sites used in these locations will display a sign labeled ''Fireworks—Stay Away'' with the same dimensions.

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

Designated representative means any Coast Guard commissioned, warrant or petty officer of the U.S. Coast Guard who has been designated by the Captain of the Port to act on his or her behalf. The designated representative may be on an official patrol vessel or may be on shore and will communicate with vessels via VHF–FM radio or loudhailer. In addition, members of the Coast Guard Auxiliary may be present to inform vessel operators of this regulation.

Official Patrol Vessels means any Coast Guard, Coast Guard Auxiliary, state, or local law enforcement vessels assigned as an on- scene representative or approved by the COTP.

Spectators means all persons and vessels not registered with the event sponsor as participants or official patrol vessels.

(c) *Enforcement periods.* (1) Safety zones for fireworks-display events listed in Table 1 of this section will be subject to enforcement for approximately 1 hour between 6 p.m. to 1 a.m. when a barge with a ''Fireworks—Stay Away'' sign on the port and starboard side is on-scene or a ''Fireworks—Stay Away'' sign is posted in a location listed in Table 1 to § 165.160.

(2) The regulations in this section will be subject to enforcement for the duration of each event on or about the dates indicated in Table 2 of this section.

(3) For events in Tables 1 and 2 that do not have a date or location listed, or if the event occurs on a date or location other than the one that is listed, then exact dates and times of the enforcement period will be announced via marine broadcast, local notice to mariners, distribution in leaflet form, local news media, or by an on-scene oral notice as appropriate.

(4) Notifications of enforcement times for events listed in Table 1 and 2, including any changes to the enforcement dates or times listed in this section, may be made via marine broadcasts, local notice to mariners, local news media, distribution in leaflet form, or by an on-scene oral notice and signage.

(d) Location. If the specific location of a safety zone for fireworks displays is not listed in Table 1, an announcement will be made by marine broadcast, local notice to mariners, distribution in leaflet form, local news media, or by an on-scene oral notice as appropriate. The specific location of swim event safety zones are listed in Table 2. Any modification to the location of safety zones described in this section will be listed in USCG First District Local Notice to Mariners at: *https://www.navcen.uscg.gov/.*

FIREWORKS DISPLAYS—TABLE 1 TO § 165.160

1.0 Event	Location [1]
1.1 Twin Island, Long Island Sound Safety Zone	Launch Site: A land shoot located on the east end of Orchard Beach, NY, in approximate position 40°52′10″ N, 073°47′07″ W. This Safety Zone includes navigable waters within a 200-yard radius from the launch site.
1.2 Arthur Kill, Elizabeth, NJ Safety Zone	Launch Site: A land shoot located in Elizabeth, NJ, in approximate position 40°38′50″ N, 074°10′58″ W. This Safety Zone includes navigable waters within a 150-yard radius from the launch site.
1.3 Wards Island, East River, NY Safety Zone	Launch Site: A land shoot located on Wards Island in approximate position 40°46′57″ N, 073°55′28″ W, approximately 330 yards north of the Robert F. Kennedy Bridge (Triborough Bridge). This Safety Zone includes navigable waters within a 200-yard radius from the launch site.

FIREWORKS DISPLAYS—TABLE 1 TO § 165.160—Continued

1.0 Event	Location [1]
1.4 Barge Based Fireworks Displays	All waters within the Sector New York COTP Zone within an area up to a 500-yard radius of a firework barge or barges used during the storage, preparation, and launching of fireworks.

[1] All coordinates listed in Table 1 to § 165.01–165.160 reference Datum NAD 1983.

SWIM EVENTS—TABLE 2 TO § 165.160

1.0 Event	Date/Location [2]
1.1 Hudson River, Ulster, NY, Swim	Date: The first weekend after the 4th of July. Location: The safety zone includes all navigable waters of the Hudson River in the vicinity of Ulster Landing, bound by the following coordinates: 42°00′03.7″ N, 073°56′43.1″ W, thence to 41°59′52.5″ N, 073°56′34.2″ W, to 42°00′15.1″ N, 073°56′25.2″ W, to 42°00′05.4″ N, 073°56′41.9″ W, thence along the shoreline to the point of origin.
1.2 Hudson River, Nyack to Kingsland Point Swim	Date: 2nd weekend in September. Location: The safety zone includes all navigable waters of the Hudson River between Nyack, NJ and the Tarrytown Lighthouse bound by the following coordinates: 41°05′10.7″ N, 073°55′03″ W, thence to 41°05′02″ N, 073°52′25″ W, to 41°05′19″ N, 073°52′22″ W, to 41°05′25″ N, 073°54′51″ W thence along the shoreline to the point of origin.
1.3 Navy Seal Swim, New York Harbor	Date: One Saturday or Sunday in August. Location: The safety zone includes all navigable waters bound by the following coordinates: 40°41′26″ N, 74°03′17″W,thence to 40°41′02″ N, 74°02′25″W, to 40°41′40″ N, 74°02′00″W, to 40°42′25″ N, 74°01′08″W, to 40°42′28″ N, 74°01′07″W, to 40°41′57″ N, 74°02′07″W, to 40°41′40″ N, 74°02′30″W, to 40°41′24″ N, 74°02′27″W, to 40°41′12″ N, 74°02′38″W, to 40°41′29″ N, 74°03′15″W, thence back to the point of origin.
1.4 Hudson River, Newburgh to Beacon Swim	Date: One Saturday or Sunday in July. Location: The safety zone includes all navigable waters of the Hudson River between Newburgh and Beacon, NY bound by the following coordinates: 41°30′24.2″ N, 074°0′17.4″ W, thence to 41°30′27.8″ N, 073°59′16.8″ W, to 41°30′11.6″ N, 073°59′19.9″ W, to 41°30′03.4″ N, 074°0′17.2″ W, thence north along the shoreline to the point of origin.
1.5 Long Island Sound, Horseshoe Harbor Swim	Date: 4th weekend in July and 2nd weekend in August. Location: The safety zone includes all navigable waters of the Long Island Sound bound by the following coordinates: 40°55′32″ N, 73°44′37″ W, thence southeast to 40°55′28″ N, 73°44′14″ W, to 40°55′01″ N, 73°43′59″ W, to 40°54′01″ N, 73°44′17″ W, to 40°54′48″ N, 73°45′10″ W, thence along the shoreline back to the point of origin.
1.6 New York Harbor, Liberty Island to Morris Canal Swim	Date: One weekend in July. Location: The safety zone includes all navigable waters of the New York Harbor bound by the following coordinates: 40°41′27″ N, 74°02′25″ W, thence to 40°41′22″ N, 74°02′13″ W, to 40°41′36″ N, 74°02′04″ W, to 40°42′39″ N, 74°01′42″ W, to 40°42′42″ N, 74°02′05″ W, to 40°42′31″ N, 74°01′55″ W, thence back to the point of origin.

[2] All coordinates listed in Table 2 to § 165.01–165.160 reference Datum NAD 1983.

Dated: April 27, 2023.

Z. Merchant,

Captain, U.S. Coast Guard, Captain of the Port New York.

[FR Doc. 2023–09361 Filed 5–3–23; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 147

[EPA–HQ–OW–2023–0073; FRL 9916–01–OW]

State of Louisiana Underground Injection Control Program; Class VI Program Revision Application

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The U.S. Environmental Protection Agency (EPA or Agency) has received a complete Underground Injection Control (UIC) program revision package from the State of Louisiana (State), requesting approval of a revision to the State's Safe Drinking Water Act (SDWA) section 1422 UIC program to include Class VI injection well primary enforcement responsibility (primacy). The proposed revision would allow the Louisiana Department of Natural Resources (LDNR) to issue UIC permits for geologic carbon sequestration facilities as Class VI wells and ensure compliance of Class VI wells under the UIC program. EPA proposes to issue a final rule approving Louisiana's application to implement the UIC program for Class VI injection wells located within the State, except those on Indian lands. EPA proposes amendments to reflect this proposed approval of Louisiana's Class VI primacy application.

DATES: Comments must be received on or before July 3, 2023. The application is available for inspection and copying at the address appearing in the **ADDRESSES** section of this document.

ADDRESSES: You may send comments, identified by Docket ID No. EPA–HQ–OW–2023–0073, by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov/* (our preferred method). Follow the online instructions for submitting comments.
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center, Water Docket, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.
- *Hand Delivery or Courier:* 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. to 4:30 p.m., Monday through 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 ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Suzanne Kelly, Drinking Water Infrastructure Development Division, Office of Ground Water and Drinking Water (4606M), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: (202) 564–3887; email address: *Kelly.Suzanne@epa.gov* or Lisa Pham, U.S. EPA Region 6, Groundwater/UIC Section (Mail code WDDG), 1201 Elm Street, Suite 500, Dallas, Texas 75720–2102; telephone number: (214) 665–8326; email address: *Pham.Lisa@epa.gov*.

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I. Public Participation

A. Written Comments

Submit your comments, identified by Docket ID No. EPA–HQ–OW–2023–0073, 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. EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI), Proprietary Business Information (PBI), or other information whose disclosure is restricted by statute. If you need to submit CBI, contact Lisa Pham, contact information available in the **FOR FURTHER INFORMATION CONTACT** section. Multimedia submissions (audio, video, etc.) must be accompanied by written comments. Written comments are considered the official comments and should include discussion of all points you wish to make. 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, PBI, or multimedia submissions; and general guidance on making effective comments.

B. Participation in Public Hearing

A public hearing will be held on June 15, 2023 at Louisiana Department of Natural Resources, LaBelle Hearing Room, 1st Floor, LaSalle Building, 617 North 3rd Street, Baton Rouge, LA 70802. For additional information regarding the public hearing, please contact Lisa Pham at (214) 665–8326 or *Pham.Lisa@epa.gov.*

EPA will begin pre-registering speakers for the hearing upon publication of this document in the **Federal Register**. To register to speak at the hearing, please contact Lisa Pham at (214) 665–8326 or *Pham.Lisa@epa.gov.* The last day to pre-register to speak at the hearing will be June 8, 2023. On

June 14, 2023, EPA will post a general agenda for the hearing that will list pre-registered speakers in approximate order at: *https://www.epa.gov/uic/underground-injection-control-epa-region-6-ar-la-nm-ok-and-tx.* 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. Additionally, requests to speak will be accepted the day of the hearing at the hearing registration desk. EPA will make every effort to accommodate all speakers who arrive and register, although it may not be possible to fulfill preferences on speaking times.

EPA encourages commenters to provide EPA with a copy of their oral testimony electronically by emailing it to *Pham.Lisa@epa.gov.* EPA also recommends submitting the text of your oral comments as written comments to the rulemaking docket.

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 comments and supporting information presented at the public hearing.

Please note that any updates made to any aspect of the hearing are posted online at: *https://www.epa.gov/uic/underground-injection-control-epa-region-6-ar-la-nm-ok-and-tx.* While EPA expects the hearing to go forward as set forth above, please monitor our website or contact Lisa Pham at (214) 665–8326 or *Pham.Lisa@epa.gov* to determine if there are any updates. EPA does not intend to publish a document in the **Federal Register** announcing updates.

EPA will not provide audiovisual equipment for presentations unless we receive special requests in advance. Commenters should notify Lisa Pham when they pre-register to speak that they will need specific equipment. If you require the services of an interpreter or special accommodations such as audio description, please pre-register for the hearing with Lisa Pham and describe your needs by June 8, 2023. EPA may not be able to arrange accommodations without advance notice.

C. Public Participation Activities Conducted by Louisiana

In October 2020, the Louisiana Department of Natural Resources (LDNR) published a notice of intent in the Louisiana Register to adopt Statewide Order No. 29–N–6 providing rules for Class VI injection wells. LDNR held a public comment period from October 20, 2020, to December 1, 2020, and provided the opportunity to request a public hearing. There was no request for a public hearing. LDNR received five comments, which did not result in changes to the proposed rule. LDNR later provided a second public comment period on the State's intent to seek Class VI Primacy from May 28, 2021, to July 13, 2021. LDNR held a public hearing at the LDNR Office in Baton Rouge on July 6, 2021. Notice of the comment period and public hearing was published in six newspapers across Louisiana, through email mailing list, and on LDNR's website to ensure statewide attention of the comment period and public hearing. LDNR received seven oral comments at the hearing and 21 written public comments. Commenters shared general concerns about the role of carbon capture and storage in mitigating climate change, sensitive coastal areas and erosion caused by pipelines, and the current pollution and environmental hazard burden in Louisiana. Commenters were also specifically concerned about whether LDNR had adequate resources to successfully permit and monitor Class VI projects and the State's assumption of liability after completion of projects. Environmental Justice (EJ) was also a major concern, with commenters seeking a clear EJ review process and criteria, as well as a mechanism for Class VI projects to avoid impacts on already overburdened communities with EJ concerns. LDNR responded to all public comments including details about increased staffing and resources for Class VI permitting responsibilities. Documentation of Louisiana's public participation activities, including comments received and responses by the LDNR, can be found in EPA's Docket ID No. EPA–HQ–OW–2023–0073.

II. Introduction

A. UIC Program and Primary Enforcement Authority (Primacy)

The Safe Drinking Water Act (also known as SDWA) was passed by Congress in 1974. It protects public health by regulating the nation's public drinking water supply, including both surface and groundwater sources. The SDWA requires EPA to develop requirements and provisions for the state and tribal Underground Injection Control (UIC) programs. These programs regulate the injection of fluids (such as water, wastewater, brines from oil and gas production, and carbon dioxide) to protect underground sources of drinking water (USDWs). USDWs are aquifers or parts of aquifers that supply a public water system or contain enough groundwater to supply a public water system. *See* 40 CFR 144.3.

The UIC program regulates various aspects of an injection well project. These include technical aspects throughout the lifetime of the project from site characterization, construction, operation, and testing and monitoring through site closure, as well as permitting, site inspections, and reporting to ensure well owners and operators comply with UIC regulations.

SDWA section 1422 directs EPA to establish requirements that states, territories, and federally recognized tribes (hereafter referred to as applicants) must meet to be granted primary enforcement responsibility or ''primacy'' for implementing a UIC program, including a Class VI program. An applicant seeking primacy under SDWA section 1422 for a Class VI program must demonstrate to EPA that the applicant's Class VI program is as stringent as the Federal requirements and is protective of USDWs, including jurisdiction over underground injection and provisions for the necessary administrative, civil, and criminal enforcement penalty remedies under SDWA.

EPA conducts a comprehensive technical and legal evaluation of each primacy application to assess and confirm that the proposed program is as stringent as the Federal regulations and to evaluate the effectiveness of the state's proposed program. Louisiana's application included the following elements: Louisiana's Class VI-related UIC statutes and regulations; documents describing the public participation process; a letter from the Governor of Louisiana requesting Class VI primacy; a Program Description that explains how the State intends to carry out its responsibilities; an Attorney General's statement of enforcement authority; and an addendum to the existing Memorandum of Agreement (MOA) between EPA and Louisiana describing the administration, implementation, and enforcement of the Louisiana's Class VI program.

B. Class VI Wells Under the UIC Program

Class VI wells are used to inject carbon dioxide into deep rock formations for the purpose of long-term underground storage, also known as geologic sequestration. Geologic sequestration, when used as a part of carbon capture and storage and carbon dioxide removal projects, is a promising tool for reducing the amount of carbon dioxide in the atmosphere. Class VI injection wells are regulated under an

existing, rigorous SDWA permitting framework that protects USDWs.

The UIC Class VI program provides multiple safeguards that work together to protect USDWs and human health. Owners or operators that wish to inject carbon dioxide for the purpose of geologic sequestration must demonstrate that their injection well will meet all regulatory requirements and receive a Class VI permit for each well. The UIC Class VI program requires applicants to meet strict technical, financial, and managerial requirements to obtain a Class VI permit, including:

- Site characterization to ensure the geology in the project area will contain the carbon dioxide within the zone where it will be injected.
- Modeling to delineate the predicted area influenced by injection activities through the lifetime of operation.
- Evaluation of the delineated area to ensure all potential pathways for fluid movement have been identified and addressed through corrective action.
- Well construction requirements that ensure the Class VI injection well will not leak carbon dioxide.
- Testing and monitoring throughout the life of the project, including after carbon dioxide injection has ended. Requirements include, for example, testing to ensure physical integrity of the well, monitoring for seismic activity near the injection site, monitoring of injection pressure and flow, chemical analysis of the carbon dioxide stream that is being injected, and monitoring the extent of the injected carbon dioxide plume and the surrounding area (*e.g.,* ground water) to ensure the carbon dioxide is contained as predicted.
- Operating requirements to ensure the injection activity will not endanger USDWs or human health.
- Financial assurance mechanisms sufficient to cover the cost for all phases of the geologic sequestration project including the post injection site care period and until site closure has been approved by the permitting authority.
- Emergency and remedial response plans.
- Reporting of all testing and monitoring results to the permitting authority to ensure the well is operating in compliance with all permit and regulatory requirements.

The permitting authority ensures that these protective requirements are included in each Class VI permit. A draft of each Class VI permit is made available to the public for comment before a final permit is issued.

C. Louisiana UIC Programs

The State of Louisiana received primacy for Class I, III, IV, and V injection wells under SDWA section 1422, and Class II injection wells under SDWA section 1425 on March 23, 1982. On September 17, 2021, Louisiana applied to EPA under section 1422 of SDWA, 42 U.S.C. 300h–1, for primacy for Class VI injection wells located within the State, except those located on Indian lands.

III. Legal Authorities

This regulation is proposed under authority of SDWA sections 1422 and 1450, 42 U.S.C. 300h–1 and 300j–9.

Section 1421 of SDWA requires the Administrator of EPA to promulgate Federal requirements for effective state UIC programs to prevent underground injection activities that endanger USDWs. Section 1422 of SDWA establishes requirements for states and tribes seeking EPA approval of their UIC programs. It also requires that states and tribes seeking approval demonstrate how the applicant (after public notice) will implement a UIC program which meets the requirements set forth under section 1421.

For states and tribes that seek approval for UIC programs under section 1422 of SDWA and those seeking EPA approval of revisions to existing state and tribal UIC programs, EPA has promulgated regulations setting forth the applicable procedures and substantive requirements codified in 40 CFR parts 144, 145 and 146. 40 CFR part 144 outlines general program requirements that each state must meet to obtain primary enforcement authority. 40 CFR part 145 specifies the procedures EPA will follow in approving, revising, and withdrawing state programs and outlines the elements and provisions that a state must include in their application. It also includes requirements for state permitting programs (by reference to certain provisions of 40 CFR parts 124 and 144), compliance evaluation programs, enforcement authority, and information sharing. 40 CFR part 146 contains the technical criteria and standards applicable to each well class, including Class VI wells.

IV. EPA's Evaluation of Louisiana's Primacy Revision Application

A. Background

On September 17, 2021, Louisiana submitted to EPA a program revision application to add Class VI injection wells to the State's SDWA section 1422 UIC program. The UIC program revision package from Louisiana includes a description of the State's UIC Class VI program, copies of all applicable rules and forms, a statement of legal authority, a summary and results of Louisiana's public participation activities, and an addendum to the existing MOA between Louisiana and EPA's Region 6 office. EPA reviewed the application for completeness and performed a technical evaluation of the application materials.

B. Environmental Justice in Class VI Permitting

People across the country have shared with EPA concerns about the safety of carbon capture and storage and carbon dioxide removal projects as well as their concern that already environmentally overburdened communities may yet again bear a disproportionate environmental burden associated with geologic sequestration. Executive Order 12898 (59 FR 7629, February 16, 1994) directs Federal agencies, to the greatest extent practicable and permitted by law, to identify and address, as appropriate, disproportionate and adverse human health or environmental impacts on minority (people of color) and low-income populations. On December 9, 2022, EPA sent a letter to state governors recognizing the importance of developing and deploying clean energy technologies that capture and remove carbon from the atmosphere while mitigating impacts on vulnerable communities, and ensuring protection of underground drinking water sources. EPA called for states seeking primacy to incorporate EJ and equity into proposed UIC Class VI programs, including in permitting. EPA outlined a variety of approaches, such as implementing an inclusive public participation process, consideration of EJ impacts on communities, enforcing Class VI regulatory requirements, and incorporating mitigation measures.

As part of developing this proposal, EPA worked with the State of Louisiana to adopt the environmental justice approaches encouraged in the letter, which Louisiana has incorporated into their primacy application. EPA reviewed Louisiana's EJ approach as described in the State's Program Description and MOA addendum and compared it to the EJ elements discussed in the December 9, 2022 letter. Louisiana's committed in its MOA addendum to adopt all the EJ elements described in the letter, including implementing an inclusive public participation process, incorporating EJ and civil rights considerations in permit review processes, enforcing Class VI regulatory protections, and incorporating mitigation measures. More specifically, Louisiana also committed in the MOA addendum to examine the potential

risks of each proposed Class VI well to minority and low-income populations. EPA supports these commitments. Furthermore, Louisiana's Program Description specifies that LDNR will require well owners or operators to conduct an EJ review as part of the Class VI application process. EPA supports LDNR's commitment in its Program Description to evaluate project sites using EPA's EJ Screen and to utilize qualified third-party reviewers to conduct additional evaluation of the Class VI application when communities with EJ concerns and/or other increased risk factors are identified. The results of the review will be used by LDNR to determine if an enhanced public comment period will be required. Lastly, LDNR's Program Description provides that LDNR will require applicants to assess alternatives to the site location and propose mitigating measures to ensure adverse environmental effects are minimized. EPA supports each of these efforts described in LDNR's program description.

Based on its review of LDNR's MOA addendum and Program Description, EPA concludes that Louisiana has addressed all EJ elements that were discussed in the December 9, 2022, letter. EPA supports LDNR's agreement to adopt these approaches to protecting EJ communities. Louisiana's Class VI Program, as described in LDNR's primacy application, includes approaches to ensure that equity and EJ will be appropriately considered in permit reviews, and in LDNR's UIC Class VI program as a whole.

C. Summary of EPA's Comprehensive Evaluation

EPA conducted a comprehensive technical and legal evaluation of Louisiana's Class VI primacy application to assess and confirm that the State's UIC Class VI program is as stringent as the Federal regulations and evaluated the effectiveness of the State's Class VI program. To be approved for Class VI primacy under SDWA section 1422, a state or tribe must have a UIC program that meets Federal requirements (40 CFR parts 124, 144, 145, and 146). EPA evaluated Louisiana's draft and final UIC statutes and Class VI regulations against these Federal requirements. The evaluation involved identifying and resolving any discrepancies between the State and Federal UIC Class VI statutory and/or regulatory provisions. EPA worked with Louisiana to address any stringency issues with their draft and final Class VI regulations prior to submittal of the primacy application. The Agency also evaluated for stringency and effectiveness Louisiana's Class VI Program Description, the Attorney General's statement of enforcement authority, and the addendum to the MOA between EPA and Louisiana, describing the administration, implementation, and enforcement of Louisiana's UIC Class VI program.

EPA evaluated Louisiana's program description against 40 CFR 145.23, which lists all the information that must be submitted as part of the program description. EPA's evaluation of the program description includes reviewing the scope, structure, coverage, processes and organizational structure of the permitting authority. EPA evaluated LDNR's permitting, administrative and judicial review procedures and reviewed the permit application, reporting, and manifest forms. EPA also reviewed the State's compliance tracking and enforcement mechanisms. EPA evaluated LDNR's proposed schedule for issuing permits within the first 2 years after program approval. More specifically, EPA required Louisiana to demonstrate that the State's Class VI program will have adequate in-house staff or access to contractor support for technical areas including site characterization, modeling, well construction and testing, financial responsibility, regulatory and risk analysis expertise.

EPA evaluated Louisiana's Attorney General's statement against 40 CFR 145.24 to ensure it met Federal requirements. The Attorney General's statement is required to ensure that a state's top legal officer affirms that state statutes, regulations and judicial decisions demonstrate adequate authority to administer the UIC Program as described in the program description and consistent with EPA's regulatory requirements for UIC programs. EPA independently evaluates and confirms that the Attorney General's statement certifies that the state either does not have environmental audit privilege and/or immunity laws, or, if there are environmental audit privilege and/or immunity laws, that they will not affect the ability of the state to meet the enforcement and information gathering requirements under SDWA.

EPA evaluated Louisiana's MOA addendum against 40 CFR 145.25 to ensure it met Federal requirements. The MOA is the central agreement setting the provisions and arrangements between the state and EPA concerning the administration, implementation, and enforcement of the state UIC Program. EPA's evaluation includes ensuring that the MOA contains the necessary provisions pertaining to agreements on coordination, permitting, compliance monitoring, enforcement, and EPA oversight. For example, the MOA addendum specifies that LDNR and EPA agree to maintain a high level of cooperation and coordination to assure successful and efficient administration of the UIC Class VI program. EPA is aware that stakeholders have raised concern about Louisiana's long term liability provision in Louisiana Revised Statute (LA R.S.) 30:1109. LDNR agreed in the MOA addendum that LDNR will not issue a certificate of completion pursuant to LA R.S. 30:1109 until the owner or operator submits a site closure report pursuant to 40 CFR 146.93(f) and Louisiana Code (LAC) 43:XVII.3633.A.6 and otherwise fully complies with the site closure requirements in 40 CFR 146.93 and LAC 43:XVII.3633.A. Additionally, EPA and LDNR agree to coordinate prior to LDNR approving any site closure to ensure doing so is consistent with the requirements of the Federal Safe Drinking Water Act. EPA concludes that Louisiana's Class VI Program—implemented consistent with the MOA addendum—meets Federal requirements. EPA will also confirm that specific aspects of LA R.S. 30:1109 are consistent with EPA's interpretation.

Louisiana has demonstrated that it has the legal authority to implement all permit requirements found in 40 CFR 145.11. Louisiana's UIC Class VI permitting provisions are as stringent as EPA's regulations in 40 CFR 124 and 144. The State has incorporated necessary procedures, pursuant to 40 CFR 145.12 to support a robust compliance evaluation program. Additionally, Louisiana has the necessary administrative, civil, and criminal enforcement penalty remedies pursuant to 40 CFR 145.13. Louisiana's Class VI regulations regarding permitting, inspection, operation, and monitoring are at least as stringent as found in 40 CFR parts 145 and 146. Louisiana's reporting and recordkeeping requirements are as stringent as found in 40 CFR 144.54 and 146.91 for Class VI wells. EPA is aware that stakeholders have raised concern that Louisiana's long term liability provision in LA R.S. 30:1109 undercuts the state's ability to meet the enforcement authority requirements at 40 CFR 145.13. EPA's interpretation is that Louisiana's enforcement authority related to Class VI meets Federal requirements if LDNR implements LA R.S. 30:1109 consistent with the MOA addendum. We are working with Louisiana to confirm that specific aspects of LA R.S. 30:1109 are consistent with our interpretation.

As a result of this comprehensive review, EPA is proposing to approve

Louisiana's application because EPA has determined that the application meets all applicable requirements for approval under SDWA section 1422 and the State is capable of administering a UIC Class VI program in a manner consistent with the terms and purposes of SDWA and all applicable UIC regulations.

V. EPA's Proposed Action—Incorporation by Reference

EPA is proposing to approve a revision to the State of Louisiana's UIC Program for primacy for regulating Class VI injection wells in the State, except for those located on Indian lands. Louisiana's statutes and supporting documentation are publicly available in EPA's Docket No. EPA–HQ–OW–2023–0073. If finalized, this action would amend 40 CFR 147.950 and incorporate by reference EPA-approved state statutes and regulations that contain standards, requirements, and procedures applicable to Class VI owners or operators. EPA will continue to administer the UIC program for Class I, II, III, IV, V and VI injection wells on Indian lands.

If finalized, the provisions of Louisiana's statutes and regulations that contain standards, requirements, and procedures applicable to owners or operators of UIC Class VI wells would be incorporated by reference into 40 CFR 147.950. Provisions of Louisiana's statutes and regulations that contain standards, requirements, and procedures applicable to owners or operators of Class I, III, IV and V injection wells have already been incorporated by reference into 40 CFR 147.950. Any provisions incorporated by reference, as well as all permit conditions or permit denials issued pursuant to such provisions, are enforceable by EPA pursuant to section 1423 of SDWA and 40 CFR 147.1(e).

For clarity, EPA is reformatting the codification of EPA-approved Louisiana SDWA section 1422 UIC Program statutes and regulations for Well Classes I, III, IV, V and VI that are already incorporated by reference. Instead of codifying Louisiana statutes and regulations as separate paragraphs, EPA will be incorporating by reference a compilation that contains ''EPA-approved Louisiana statutes and regulations for Well Classes I, III, IV, V and VI.'' This notebook compilation will be incorporated by reference into 40 CFR 147.950 and the documents will be available at *https://www.regulations.gov* in the docket for this proposed rule. EPA will also codify a table listing EPA-approved Louisiana Statutes and Regulations for Well Classes I, III, IV, V and VI in 40 CFR 147.950, including those already incorporated by reference.

Upon approval, EPA would oversee Louisiana's administration of SDWA Class VI program and will continue to oversee Louisiana's administration of the programs for SDWA Class I, II, III, IV, and V wells. EPA will require quarterly reports of non-compliance and annual UIC performance reports pursuant to 40 CFR 144.8. The MOA addendum between EPA and Louisiana, signed by the Regional Administrator on March 3, 2023, articulates that EPA will oversee the State's administration of the UIC Class VI program on a continuing basis to assure that such administration is consistent with the program MOAs, the State UIC grant application, and all applicable requirements embodied in current regulations, policies, and Federal law. In addition, the MOA addendum provides that EPA may request specific information including permits and the accompanying EJ reviews.

VI. Statutory and Executive Order Reviews

Additional information about these statutes and Executive orders can be found at: *https://www.epa.gov/laws-regulations/laws-and-executive-orders.*

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is exempt from review by the Office of Management and Budget (OMB) because OMB has exempted, as a category, the approval of state UIC programs.

B. Paperwork Reduction Act (PRA)

This proposed action will 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 2040–0042. Reporting or recordkeeping requirements will be based on Louisiana's UIC Regulations, and the State of Louisiana is not subject to the PRA.

C. Regulatory Flexibility Act (RFA)

I certify that this proposed action will not have a significant economic impact on a substantial number of small entities under the RFA. This proposed action does not impose any requirements on small entities as this action approves an existing state program.

D. Unfunded Mandates Reform Act (UMRA)

This proposed action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The proposed action imposes no enforceable duty on any state, local, or tribal governments or the private sector. EPA's proposed approval of Louisiana's Class VI program will not constitute a Federal mandate because there is no requirement that a state establish UIC regulatory programs and because the program is a state, rather than a Federal program.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It 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.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This proposed action does not have tribal implications as specified in Executive Order 13175. This proposed action contains no Federal mandates for tribal governments and does not impose any enforceable duties on tribal governments. Thus, Executive Order 13175 does not apply to this proposed action.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This proposed action is not subject to Executive Order 13045 because it approves a state program.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This proposed action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This proposed action does not involve technical standards.

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 low-income populations.

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 there currently are no Class VI wells permitted in Louisiana and because this is a procedural action. EPA has reviewed Louisiana's proposed approach to environmental justice, as outlined in the Program Description and MOA, and described in section IV.B of this preamble. EPA considers Louisiana's Class VI primacy application to fully integrate environmental justice and equity considerations into their UIC Class VI program, while ensuring protection of USDWs. This proposed action would provide Louisiana with primacy under SDWA section 1422 for a UIC Class VI program, pursuant to which Louisiana will be implementing a program that is as stringent as an EPA administered UIC Class VI program.

VII. References

Attorney General's Statement ''Attorney General's Statement to Accompany Louisiana's Underground Injection Control Program Class VI Primacy Application,'' signed by the Attorney General for the State of Louisiana, February 10, 2021.

Memo from Environmental Defense Fund and Gupta Wessler PLLC to EPA related to Long Term Liability, March 2, 2023.

Letter from EPA to State Governors, December 9, 2022.

Letter from Governor of Louisiana to Regional Administrator, EPA Region VI, March 4, 2021.

Louisiana Administrative Code 43:XVIII.Chapter 36 (Statewide Order No. 29–N–6). Class VI Injection Well Regulations. January 2021.

Memorandum of Agreement Addendum 3 between the State of Louisiana and EPA, Region VI for the UIC Class VI Program, signed by the EPA Regional Administrator on March 3, 2023.

State of Louisiana Class VI Underground Injection Control Program 1422 Description, April 2021.

State of Louisiana. Summary Report of Public Comment Class VI Geologic Sequestration of Carbon Dioxide Office of Conservation Rules and Regulations LAC 43:XVII.Chapter 6 (Statewide Order 29–N–6), April 21, 2021.

State of Louisiana. Comment Response Document. Class VI Geologic Sequestration of Carbon Dioxide Office of Conservation Rules and Regulations LAC 43:XVII.Chapter 6 (Statewide Order 29–N–6), December 9, 2020.

State of Louisiana. Public Hearing and Rule Docket for the Class VI USEPA Primacy Application, July 6, 2021.

State of Louisiana. Public Hearing Transcript for the Class VI USEPA Primacy Application, July 6, 2021.

State of Louisiana. Compilation of Public Comments. Class VI Geologic Sequestration of Carbon Dioxide Office of Conservation Rules and Regulations LAC 43:XVII.Chapter 6 (Statewide Order 29–N–6), August 12, 2021.

State of Louisiana Summary Report of Public Comment Class VI Geologic Sequestration of Carbon Dioxide Office of Conservation Rules and Regulations LAC 43:XVII.Chapter 6 (Statewide Order 29–N–6), September 17, 2021.

List of Subjects in 40 CFR Part 147

Environmental protection, Incorporation by reference, Indian lands, Intergovernmental relations, Reporting and recordkeeping requirements, Water supply.

Michael S. Regan,

Administrator.

For the reasons set forth in the preamble, EPA proposes to amend 40 CFR part 147 as follows:

PART 147—STATE, TRIBAL, AND EPA-ADMINISTERED UNDERGROUND INJECTION CONTROL PROGRAMS

■ 1. The authority citation for part 147 continues to read as follows:

Authority: 42 U.S.C. 300f *et seq.;* and 42 U.S.C. 6901 *et seq.*

■ 2. Amend § 147.950 by:
■ a. Revising the section heading;
■ b. Revising the introductory text and paragraph (a);
■ c. Adding paragraphs (b)(3) and (4), and (c)(4); and
■ d. Revising paragraph (d).

The revisions and additions read as follows:

§ 147.950 State-administered program—Class I, II, III, IV, V and VI wells.

The UIC program for Class I, II, III, IV, and V wells in the State of Louisiana, except those wells on Indian lands, is the program administered by the Louisiana Department of Natural Resources approved by EPA pursuant to sections 1422 and 1425 of the SDWA. Notice of this approval was published in the **Federal Register** on April 23, 1982; the effective date of this program is March 23, 1982. The UIC Program for Class VI wells in Louisiana, except those located on Indian lands, is the program administered by the Louisiana Department of Natural Resources, approved by EPA pursuant to SDWA section 1422. The effective date of this program is [DATE OF FINAL RULE PUBLICATION IN THE **FEDERAL REGISTER**]. The UIC program for Class I, II, III, IV, V, and VI wells in the State of Louisiana, except those located on Indian lands, consists of the following elements, as submitted to EPA in the State's program application and program revision application.

(a) *Incorporation by reference.* EPA-approved Louisiana statutes and regulations for Well Classes I, III, IV, V and VI, dated [date when EPA compiles the notebook] (as described in table 1 to this paragraph (a)) is incorporated by reference and made a part of the applicable UIC program under the SDWA for the State of Louisiana. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. This material is available for inspection at the EPA and the National Archives and Records Administration (NARA). Contact the EPA at: the Water Docket, EPA Docket Center (EPA/DC) EPA West, Room 3334, 1301 Constitution Ave. NW, Washington, DC 20460; (202) 566–2426. For information on the availability of this material at NARA, visit *www.archives.gov/federal-register/cfr/ibr-locations.html* or email *fr.inspection@nara.gov.* The material may be obtained from or inspected at the Louisiana Department of Natural Resources (LDNR), Office of Conservation, Injection and Mining Division, LaSalle Building, 617 North Third Street, Room 817, Baton Rouge, LA 70802; (225) 342–5581.

TABLE 1 TO PARAGRAPH (a)—EPA-APPROVED LOUISIANA SDWA § 1422 UNDERGROUND INJECTION CONTROL PROGRAM STATUTES AND REGULATIONS FOR WELL CLASSES I, III, IV, V AND VI

State citation	Title/subject	State effective date	EPA approval date
Louisiana Revised Statutes Annotated sections 30:1; 30:4; 30:6; 30:18; 30:22–23, and 30:1101 to 30:1111.	Minerals, Oil, and Gas and Environmental Quality.	1975 and Supp. 1982.	June 25, 1984.
Underground Injection Control Program Regulations for Class I, III, IV, and V wells, (Statewide Order No. 29–N–1).	Class I, III, IV and V Injection Wells.	February 20, 1982 ...	June 25, 1984.
Louisiana Administrative Code 43:XIX.Chapters 1–5 (Statewide Order No. 29–B).	Drilling for and Producing of Oil and Gas in the State of Louisiana.	August 26, 1974	June 25, 1984.
Louisiana Administrative Code 43:XVIII.Chapter 3 (Statewide Order No. 29)..	Hydrocarbon Storage Wells in Salt Dome Cavities.	July 20, 1977	June 25, 1984.
Louisiana Administrative Code 43:XVIII.Chapter 36 (Statewide Order No. 29–N–6).	Class VI Injection Wells	January 2021	[DATE OF FINAL RULE PUBLICATION IN THE **FEDERAL REGISTER.**]

(b) * * *

(3) Memorandum of Agreement Addendum 3 between the State of Louisiana and EPA, Region VI for the UIC Class VI Program, signed by the EPA Regional Administrator on March 3, 2023.

(4) Letter from Governor of Louisiana to Regional Administrator, EPA Region VI, March 4, 2021.

(c) * * *

(4) Attorney General's Statement ''Attorney General's Statement to Accompany Louisiana's Underground Injection Control Program Class VI Primacy Application,'' signed by the Attorney General for the State of Louisiana, February 10, 2021.

(d) The Program Description and any other materials submitted as part of the application or amendment thereto, and the Program Description and any other materials submitted as part of the program revision application or amendment thereto.

[FR Doc. 2023–09302 Filed 5–3–23; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 648

RIN 0648–BL45

Magnuson-Stevens Fishery Conservation and Management Act Provisions; Fisheries of the Northeastern United States; Amendment 23 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Availability of proposed fishery management plan amendment; request for comments.

SUMMARY: The Mid-Atlantic Fishery Management Council has submitted the Black Sea Bass Commercial State Allocation Amendment (Amendment 23) to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan to NMFS. Amendment 23 proposes to establish commercial state-by-state allocations for black sea bass in the Federal fishery management plan and regulations, change the trigger for the in-season closure accountability measures and change the state-overage payback. Amendment 23 is intended to address the allocation-related impacts of the significant changes in the distribution of black sea bass that have occurred since the original allocations were implemented.

DATES: Comments must be received by July 3, 2023.

ADDRESSES: You may submit comments on this document, identified by NOAA–NMFS–2023–0041 by the following method:

• *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *https://www.regulations.gov* and enter NOAA–NMFS–2023–0041 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* 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).

Copies of Amendment 23, including the Environmental Assessment, the Regulatory Impact Review, and the Regulatory Flexibility Analysis (EA/RIR/RFA) prepared in support of this action are available from Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management Council, Suite 201, 800 North State Street, Dover, DE 19901. The supporting documents are also accessible via the internet at: *https://www.mafmc.org/actions/bsb-commercial-allocation.*

FOR FURTHER INFORMATION CONTACT: Emily Keiley, Fishery Policy Analyst, (978) 281–9116, or *Emily.Keiley@noaa.gov.*

SUPPLEMENTARY INFORMATION:

Background

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires that each Regional Fishery Management Council transmit any amendment it prepares to NMFS for review and approval, disapproval, or partial approval. The Magnuson-Stevens Act also requires that NMFS, upon receiving an amendment and associated regulations deemed necessary by the Council to implement the amendment, immediately publish notification in the **Federal Register** that the amendment is available for public review and comment. The Mid-Atlantic Council transmitted its final version of

Amendment 23 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP) to NMFS for review on September 14, 2022. On April 13, 2023, the Council submitted Amendment 23 proposed rule regulations they deemed to be necessary and appropriate as specified in section 303(c) of the Magnuson-Stevens Act.

Amendment 23 considers changes to the management of the commercial black sea bass fishery. Specifically, this amendment proposes to establish the commercial black sea bass state-by-state allocations in the Federal FMP and regulations, while also making changes to those state allocations (previously managed only under the Atlantic States Marine Fisheries Commission's FMP), proposes a change to the Federal in-season closure regulations for the commercial black sea bass fishery, and proposes a change to the provisions that apply when a quota overage occurs to incorporate the potential for a state-level overage. The intended purpose of the proposed state allocation changes is to provide fair and equitable access to the commercial black sea bass fishery among states in the management unit, taking into consideration the historical dependence of the states on the fishery, as well as changes in abundance and stock distribution over time. The purpose of the change to the in-season closure trigger is to continue to prevent commercial annual catch limit (ACL) overages while minimizing potential negative socioeconomic impacts of Federal in-season closures on states that have not fully harvested their allocations.

Under section 304(a)(3) of the Magnuson-Stevens Act, the Secretary of Commerce may disapprove, or partially approve an amendment submitted by the Council if it is determined to be inconsistent with a provision of the Magnuson-Stevens Act or other applicable law. The sections below describe the factors we are considering in making the decision to approve, disapprove, or partially approve Amendment 23. The final decision on Amendment 23 will be announced to the Mid-Atlantic Council within 30 days of the end of the comment period for this notification of availability.

Proposed Measures

Council Management of State Allocations

This amendment considers whether the state allocations should remain only in the Commission's Interstate FMP, or if they should be included in both the Council and Commission's FMPs. The stated purposes are to provide fair and equitable access to the commercial black sea bass fishery among states in the management unit, taking into consideration the historical dependence of the states on the fishery, as well as changes in abundance and stock distribution over time; to allow the Council and Commission to determine which management measures are most appropriate for joint management in both FMPs; and to help prevent commercial ACL overages while minimizing potential negative socioeconomic impacts of Federal in-season closures on states that have not fully harvested their allocations. Under the Council's preferred alternative, the state allocations would be added to the Federal FMP. If approved, this change would mean that future changes to the allocations must be considered through a joint action of the Council and Commission. This change would also shift an administrative burden and cost of monitoring state quotas and processing state quota transfers to the Regional Office, similar to what is done for Atlantic bluefish and summer flounder. We are considering disapproving the addition of the state allocations to the Federal FMP, and specifically invite public comment on this. A summary of our rationale is provided below.

Adding the state allocations to the Federal FMP would unnecessarily increase the administrative burden on, and cost to, state agencies and NMFS, and create additional inefficiencies, with no clear direct benefit to either the government, the resource, or the fisheries. This is contrary to the direction of National Standard 5 to consider efficiency in the utilization of fishery resources and National Standard 7's direction to minimize costs and avoid unnecessary duplication. National Standard 7 guidelines, in particular, state that ''[m]anagement measures should not impose unnecessary burdens on the economy, on individuals, on private or public organizations, or on Federal, state, or local governments.'' The Commission has been successfully managing the black sea bass state commercial quotas since their inception in 2003, while NMFS monitors commercial landings coastwide and tracks total landings against the coastwide quotas. Under the current Commission process, state-to-state quota transfers are processed efficiently without the added administrative burden of the Federal process, which, for summer flounder and bluefish, requires significantly more time and resources and reduces flexibilities for states, including the need to publish state quota transfers in the **Federal Register** before they can be effective. In addition to the increased administrative burden, shifting the allocations into the Federal FMP encumbers the management process such that both the Council and Board must agree on any future changes to the allocations.

Currently, Commission management of this stock includes members from all states and its process will continue to allow equity in representation when making future changes to state allocations. Management by the Mid-Atlantic Council has representation from the states from New York to North Carolina, but does not include membership from the northern states, such as Connecticut, Rhode Island, and Massachusetts, that also have a strong interest in the black sea bass fishery. Given climate change and the northward expansion of the black sea bass stock, this inequity in representation on the Council creates challenges when making decisions regarding future potential allocation changes, by providing the states with seats on the Council a disproportionate role in the decision-making process. The absence of northern states in the Council's membership has important implications for addressing National Standard requirements. For example, while the threshold decision of whether to include the state commercial quotas in the Federal FMP is not an allocation of fishing privileges, it is not clear how this action will provide for National Standard 4's requirement of fair and equitable allocations and National Standard 8's mandate to provide for the sustained participation of all fishing communities along with minimizing adverse economic impacts on such communities to the extent practicable. Given that black sea bass has already become an important commercial and recreational species for fishermen in northern states, it is important that the management body with the authority to change state allocations is inclusive of the states with an interest in the fishery. Continued northward expansion of the stock is expected due to climate change, which is expected to exacerbate the already challenging allocation deliberations of the Council and Commission. Adding the state allocations to the Federal FMP and thus giving the Mid-Atlantic Council jurisdiction over these state allocations without northern states as Council members, while the Commission does include these states, creates management challenges—including potentially inadequate consideration of northern states' fisheries, or even

different allocation decisions from each body. This could make the management of this stock less adaptable to future changes in distribution of both the resource and the fisheries that rely on it, implicating concerns regarding variations and contingencies as articulated by National Standard 6.

Commercial State Allocation Scheme

This joint action considered changes to the distribution of commercial black sea bass quota among the states. Because the state commercial allocations are not currently a part of the Federal FMP, the Commission considered and implemented a new allocation formula in its FMP. The Council is recommending we adopt the same allocation scheme in the Federal FMP.

This new allocation does not specify fixed-allocation percentages, but defines a process for calculating allocations that is partially based on biomass distribution. The allocations would be modified through the specifications process each time new biomass distribution information is available. Specifically, the state allocation percentages will be calculated using the following steps:

(1) Connecticut's baseline allocation was increased from 1 to 3 percent, and New York's baseline allocation was increased from 7 to 8 percent;

(2) Seventy-five percent of the coastwide quota is then allocated according to the new baseline allocations (*i.e.,* the original allocations implemented by Amendment 13 to the Interstate FMP in 2003 would be modified to account for the initial increases to Connecticut and New York);

(3) Twenty-five percent of the quota is allocated to three regions based on the most recent regional biomass distribution information. The three regions are: Maine-New York, New Jersey, and Delaware-North Carolina; and,

(4) The regional allocations are distributed among states within a region in proportion to their baseline allocations, except Maine and New Hampshire would each receive 1 percent of the northern region quota.

While we are considering disapproving the inclusion of these revised allocations in the Federal FMP due to the unnecessary increase in administrative burden and inefficiencies, and the lack of northern states as members of the Council as described above, we are supportive of the revised approach that was developed by the Council and Commission as it includes consideration of the distribution of the black sea bass stock, and the ability to revise allocations as the stock shifts. As noted, the Commission has already implemented this process for the development of the 2023 commercial quotas and this process will continue to serve as the basis for state-by-state allocations regardless of NMFS's final decision with respect to promulgating the proposed state allocations in Federal regulations.

Federal Commercial In-Season Closure Trigger

Currently, the Federal FMP requires a commercial coastwide in-season closure for all federally permitted vessels and dealers, regardless of state, once the coastwide quota is projected to be landed. This amendment considers changing this trigger, so that the closure would occur once landings are projected to exceed the coastwide quota plus an additional buffer of up to 5 percent. The Council and Board would agree to the appropriate buffer for the upcoming year through the specifications process. The Council's Monitoring Committee and the Commission's Technical Committee would provide advice on the appropriate buffer based on considerations such as stock status, the quota level, and recent fishery trends. We are proposing to approve this change to the in-season closure trigger.

Overages and State Payback Requirements

Under the Commission FMP, overages of state-specific quotas are only required to be paid back by a state when the coastwide quota has been exceeded. If the state allocations are included in the Federal FMP the Council and Board's preferred alternative is to maintain this payback provision. In years when the annual landings do not exceed the coastwide quota, no state-level or coastwide paybacks would be required. If the annual coastwide quota is exceeded, states with quota overages will be required to pay back those overages in the following year. All black sea bass landed for sale in a state shall be applied against that state's annual commercial quota, regardless of where the black sea bass were harvested. Any landings in excess of the commercial quota in any state, inclusive of any state-to-state transfers, will be deducted from that state's annual quota for the following year in the final rule that establishes the annual state-by-state quotas. The overage deduction will be based on landings for the current year through October 31, and on landings for the previous calendar year that were not included when the overage deduction was made in the final rule that established the annual quota for the current year. Should NMFS disapprove establishing the state-by-state allocation in Federal regulations, as explained above, this provision would also be disapproved as moot in the Federal FMP, though it would continue to apply through the Commission process.

Public Comment Instructions

The Magnuson-Stevens Fishery Conservation and Management Act authorizes the Secretary of Commerce to approve, partially approve, or disapprove measures recommended by the Council in an amendment based on whether the measures are consistent with the fishery management plan, plan amendment, the Magnuson-Stevens Act and its National Standards, and other applicable law. As such, we are seeking comment on whether measures in Amendment 23 are consistent with the Summer Flounder, Scup, and Black Sea Bass FMP, the Magnuson-Stevens Act and its National Standards, and other applicable law. Public comments on this amendment and its incorporated documents may be submitted through the end of the comment period stated in this notification of availability.

A proposed rule to implement the amendment, including draft regulatory text, will also be published in the **Federal Register** for public comment. Public comments on the proposed rule received before the end of the comment period provided in this notification of availability will be considered in the approval/disapproval decision on the amendment. All comments received by July 3, 2023, whether specifically directed to Amendment 23 or the proposed rule for this amendment, will be considered in the approval/disapproval decision on the Commercial State Allocation Amendment. Comments received after that date will not be considered in the decision to approve or disapprove the amendment. To be considered, comments must be received by close of business on the last day of the comment period.

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

Dated: April 28, 2023.

Jennifer M. Wallace,

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

[FR Doc. 2023–09456 Filed 5–3–23; 8:45 am]

BILLING CODE 3510–22–P

Notices

Federal Register
Vol. 88, No. 86
Thursday, May 4, 2023

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

Rural Housing Service

[Docket No. RHS–23–CF–0002]

Rural Community Development Initiative (RCDI) for Fiscal Year 2023

AGENCY: Rural Housing Service, Department of Agriculture.

ACTION: Notice of funding of availability (NOFA).

SUMMARY: The Rural Housing Service (RHS or the Agency), a Rural Development (RD) agency of the United States Department of Agriculture (USDA), announces the acceptance of applications under the Rural Community Development Initiative (RCDI) program for fiscal year (FY) 2023. These grants will be made to qualified intermediary organizations that will provide financial and technical assistance to recipients to develop their capacity and ability to undertake projects related to housing, community facilities, or community and economic development that will support the community. Congress, in the Consolidated Appropriations Act, 2023 appropriated $6,000,000 in FY 2023 for the RCDI program. Of this amount, $1.6 million will be made available to projects located in Persistent Poverties Counties. Eligible applicants for the Persistent Poverty Counties set aside must demonstrate that 100 percent of the benefits of an approved grant will assist recipients in Persistent Poverty Counties.

DATES: Completed applications must be submitted using one of the following methods:

- *Paper submissions:* Paper application must be received by 4:00 p.m. local time by the Rural Development State Office where the applicant's headquarters is located. July 3, 2023.
- *Electronic submissions:* Electronic applications must be submitted via *Grants.gov* by 11:59 p.m. Eastern Time on June 28, 2023.

Prior to official submission of applications, applicants may request technical assistance or other application guidance from the Agency, as long as such requests are made prior to June 23, 2023.

ADDRESSES: Applicants wanting to apply for assistance may download the application documents and requirements as stated in this Notice from the RCDI website: *https://www.rd.usda.gov/programs-services/community-facilities/rural-community-development-initiative-grants.* Application information for electronic submissions may be found at *https://www.Grants.gov/.* Applicants may also request paper application packages from the Rural Development office in their state. A list of Rural Development State office contacts can be found via *https://www.rd.usda.gov/files/CF_State_Office_Contacts.pdf.*

FOR FURTHER INFORMATION CONTACT: Shirley J. Stevenson, Community Programs Specialist, Rural Development, United States Department of Agriculture, 1400 Independence Ave. SW, Washington, DC 20250, Phone: (202) 205–9685, Email: *Shirley.Stevenson@usda.gov.*

SUPPLEMENTARY INFORMATION:

Overview

Federal Awarding Agency Name: Rural Housing Service, (RHS).

Funding Opportunity Title: Rural Community Development Initiative, (RCDI).

Announcement Type: Notice of Funding Availability (NOFA).

Funding Opportunity Number: USDA–RD–HCFP–RCDI–2023.

Assistance Listing: 10.446.

Dates: Applications must be submitted using one of the following methods:

- *Paper submissions:* The deadline for receipt of a paper application is 4 p.m. local time, to the Rural Development State Office where the applicant's headquarters is located. July 3, 2023. Applicants intending to mail applications must provide sufficient time to permit delivery on or before the closing deadline date and time. Acceptance by the United States Postal Service or private mailer does not constitute delivery. Facsimile (FAX), electronic mail, and postage due applications will not be accepted. The application dates and times are firm. The Agency will not consider any application received after the deadline.
- *Electronic submission:* Electronic applications will be accepted via *Grants.gov*. The deadline for receipt of an electronic applications via *Grants.gov* is 11:59 p.m. Eastern Time on June 28, 2023. The application dates and times are firm. The Agency will not consider any application received after the deadline. The Agency recommends not filing electronic submissions too close to the submission deadline in the event there is a problem with the system. Applicants that choose to mail applications in lieu of an electronic submission must provide sufficient time to permit delivery on or before the closing deadline date and time. Acceptance by the United States Postal Service or private mailer does not constitute delivery. Facsimile (FAX), electronic mail and postage due applications will not be accepted. Prior to official submission of applications, applicants may request technical assistance or other application guidance from the Agency, as long as such requests are made prior to June 23, 2023. Technical assistance is not meant to be an analysis or assessment of the quality of the materials submitted, a substitute for agency review of completed applications, nor a determination of eligibility, if such determination requires in-depth analysis. The Agency will not accept any applications or consider additional information or documentation after the application deadline. The application dates and times are firm. The Agency will not consider any application received after the deadline. The Agency reserves the right to contact applicants to seek clarification information on materials contained in the submitted application.

Rural Development Key Priorities: The Agency encourages applicants to consider projects that will advance the following key priorities (more details available at *https://www.rd.usda.gov/priority-points*):

- Reducing climate pollution and increasing resilience to the impacts of climate change through economic support to rural communities.

• Ensuring all rural residents have equitable access to RD programs and benefits from RD funded projects; and

• Assisting rural communities recover economically through more and better market opportunities and through improved infrastructure.

For further information, visit *https://www.rd.usda.gov/priority-points.*

A. Program Description

1. *Purpose of the Program.* The program is designed to assist qualified private organizations, nonprofit organizations, and public (including tribal) intermediary organizations, proposing to carry out financial and technical assistance programs to improve housing, community facilities, and community and economic development projects in rural areas. The RCDI program requires the intermediary (Grantee) to provide a program of financial and technical assistance to recipients. The recipients will, in turn, provide programs to their communities (beneficiaries).

2. *Statutory and Regulatory Authority.*

(a) *Statutory:* Congress created the RCDI program in 1999 (Pub. L. 106–78), and funding continued under the enactment of the Consolidated Appropriations Act, 2023 (Pub. L. 117–328). This program is implemented under the guidelines announced in this Notice and 2 CFR part 200.

(b) *Persistent Poverty Counties:* Section 736 of the Consolidated Appropriations Act, 2023, designated funding for projects in Persistent Poverty Counties, which is defined as ''any county that has had 20 percent or more of its population living in poverty over the past 30 years, as measured by the 1990 and 2000 decennial censuses, and 2007–2011 American Community Survey 5-year average, or any territory or possession of the United States.'' Another provision in section 736 expands the eligible population in persistent poverty counties to include any county seat of such a persistent poverty county that has a population that does not exceed the authorized population limit by more than 10 percent. This provision expands the current 50,000 population limit to 55,000 for only county seats located in Persistent Poverty Counties. Therefore, recipients of technical assistance services located in county seats of Persistent Poverty County Counties with populations up to 55,000 (per the 2010 Census) are eligible. Funding in the amount of $1.6 million is available to support Persistent Poverty Counties.

3. *Definitions.*

Agency—The Rural Housing Service or its successor.

Beneficiary—Entities or individuals that receive benefits from assistance provided by the recipient.

Capacity—The ability of a recipient to implement housing, community facilities, or community and economic development projects.

Conflict of interest—A situation in which a person or entity has competing personal, professional, or financial interests that make it difficult for the person or business to act impartially. Regarding use of both grant and matching funds, Federal procurement standards prohibit transactions that involve a real or apparent conflict of interest for owners, employees, officers, agents, or their immediate family members having a financial or other interest in the outcome of the project; or that restrict open and free competition for unrestrained trade. Specifically, project funds may not be used for services or goods going to, or coming from, a person or entity with a real or apparent conflict of interest, including, but not limited to, owner(s) and their immediate family members. An example of a conflict of interest occurs when an employee of the grantee, a member of the grantee's board of directors, or the immediate family of either, has the appearance of a professional or personal financial interest in a recipient receiving the benefits or services of the grant.

Federally recognized Tribes—Tribal entities recognized and eligible for funding and services from the Bureau of Indian Affairs, based on the most recent notice in the **Federal Register** published by the Bureau of Indian Affairs (pursuant to Pub. L. 103–454) and Tribes that received federal recognition after the most recent publication. Tribally designated housing entities (TDHE) are eligible RCDI recipients.

Financial assistance—Funds, not to exceed $10,000 per award, used by the intermediary to purchase supplies and equipment to build the recipient's capacity.

Funds—The RCDI grant and matching funds that have been provided by the Grantee.

Intermediary—A qualified private organization, nonprofit organization (including faith-based and community organizations and philanthropic organizations), or public (including tribal) organization that provides financial and technical assistance to multiple recipients.

Low-income rural community—An authority, district, economic development authority, regional council, Federally recognized Tribe, or unit of government representing an incorporated city, town, village, county, township, parish, Indian reservation or borough whose income is at or below 80 percent of either the state or national Median Household Income as measured by the 2010 Census.

Matching funds—Cash or confirmed funding commitments. Matching funds must be at least equal to the grant amount and committed for a period of not less than the grant performance period.

Persistent Poverty County—Any county that has had 20 percent or more of its population living in poverty over the past 30 years, as measured by the 1990 and 2000 decennial censuses, and 2007–2011 American Community Survey 5-year average, or any territory or possession of the United States.

Recipient—The entity that receives the financial and technical assistance from the intermediary. The recipient must be a nonprofit community-based housing and development organization, a low-income rural community or a federally recognized Tribe.

Rural and rural area—Any area other than (i) a city or town that has a population of greater than 50,000 inhabitants and (ii) the urbanized area contiguous and adjacent to such city or town.

Technical assistance—Skilled help in improving the recipient's abilities in the areas of housing, community facilities, or community and economic development.

4. *Application of Awards.* Awards under the RCDI Program are limited and are awarded through a competitive process. No reimbursement will be made for any funds expended prior to execution of the RCDI Grant Agreement unless the intermediary is a nonprofit or educational entity and has requested and received written Agency approval of the costs prior to the actual expenditure.

This exception is applicable for up to 90 days prior to grant closing and only applies to grantees that have received written approval but have not executed the RCDI Grant Agreement.

The Agency cannot retroactively approve reimbursement for expenditures prior to execution of the RCDI Grant Agreement.

B. Federal Award Information

Qualified private organizations, nonprofit organizations and public (including Tribal) intermediary organizations proposing to carry out financial and technical assistance programs will be eligible to receive grant funding.

The intermediary will be required to provide matching funds in an amount at least equal to the RCDI grant. In-kind contributions cannot be used as

matching funds. Partnerships with other federal, state, local, private, and nonprofit entities are encouraged.

Type of Award: Grant.

Fiscal Year Funds: FY 2023.

Available Funds: $6,000,000. Of this amount, $1.6 million will be made available to projects located in or serving Persistent Poverties Counties.

Award Amounts: Grant funds are limited and are awarded through a competitive process.

Minimum/Maximum Award Amount: The minimum grant award is $50,000 and the maximum award amount is $500,000. The respective minimum and maximum grant amounts per intermediary are $50,000 and $500,000, respectively. The intermediary must provide a program of financial and technical assistance to recipients to develop their capacity and ability to undertake projects related to housing, community facilities, or community and economic development that will support the community.

Anticipated Award Date: August 15, 2023.

Performance Period: Grant funds must be utilized within three years from date of the award. A grantee that has an outstanding RCDI grant over three years old, as of the application due date in this Notice, is not eligible to apply for this round of funding.

The intermediary must provide a program of financial and technical assistance to one or more of the following: a private, nonprofit community-based housing and development organization, a low-income rural community or a Federally recognized Tribe. An intermediary proposing to serve one or more federally recognized Tribe(s) must include a resolution of support with its application from the respective Tribe(s) it proposes to serve. If the resolution of support is not submitted for each respective Tribe, the Tribe will be considered ineligible as a recipient. This requirement is being added to ensure collaboration during the application process between intermediaries and all Tribes that they propose to serve.

An intermediary proposing to serve one or more federally recognized Tribes must include a resolution of support with its application from the Tribes it proposes to serve. If the resolution of support is not submitted for each Tribe, the Tribe will be considered ineligible as a recipient. This requirement is being added to ensure collaboration during the application process between intermediaries and all Tribes that they propose to serve.

Renewal or Supplemental Awards: Applicants must re-apply for an additional grant.

Type of Assistance Instrument: Grant agreement.

C. Eligibility Information

1. *Eligible Applicants.* Applicants must meet all the following eligibility requirements by the application deadline. Applications that fail to meet any of these requirements by the application deadline will be deemed ineligible, will not be evaluated further, and will not receive a Federal award under this funding opportunity:

(a) Qualified private organizations, nonprofit organizations (including faith-based organizations in accordance with 7 CFR part 16, community organizations and philanthropic foundations), and public (including Tribal) intermediary organizations are eligible applicants. Definitions that describe eligible organizations and other key terms are listed below.

(b) The recipient must be a nonprofit community-based housing and development organization, low-income rural community, or Federally recognized Tribe based on the RCDI definitions of these groups.

(c) Private nonprofit, faith, or community-based organizations must provide a certificate of incorporation and a certificate of good standing from the Secretary of State of the State of incorporation, or other similar and valid documentation of current nonprofit status. For low-income rural community recipients, the Agency requires evidence that the entity is a public body and census data verifying that the median household income of the community where the office receiving the financial and technical assistance is located is at, or below, 80 percent of the State or national median household income, whichever is higher. For federally recognized Tribes the Agency needs the page listing their name from the current **Federal Register** list of tribal entities recognized and eligible for funding services (see the definition of Federally recognized tribes in this Notice for details on this list). An intermediary proposing to serve one or more federally recognized Tribes must include a resolution of support with its application from the Tribes it proposes to serve. If the resolution of support is not submitted for each Tribe, the Tribe will be considered ineligible as a recipient. This requirement is being added to ensure collaboration during the application process between intermediaries and all Tribes that they propose to serve.

(d) Eligible applicants for the Persistent Poverty Counties set aside must demonstrate that 100 percent of the benefits of an approved grant will assist recipients in Persistent Poverty Counties. Eligibility Requirements outlined in Part C of this Notice will also apply to the Persistent Poverty Counties set aside.

(e) Any corporation that has been convicted of a felony criminal violation under any Federal law within the past 24 months; or has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless the agency has considered suspension or debarment of the corporation and has made a determination that this further action is not necessary to protect the interests of the Government, is not eligible for financial assistance in accordance with restrictions in sections 744 and 745 outlined in Division E, Title VII, ''General Provisions—Government-Wide'' of the Consolidated Appropriations Act, 2023 (Pub. L. 117–328).

2. *Cost Sharing or Matching.* Matching funds are required to be provided in an amount that, at a minimum, is equal to the amount of the grant. If this matching fund requirement is not met, the application will be deemed ineligible (*see,* the ''Federal Award Information'' section for the required pre-award and post award matching funds documentation submission).

(a) Matching funds must be in the form of cash or confirmed funding commitments that, at a minimum, are equal to the grant amount. Matching funds must also be committed for a period of not less than the grant performance period. These funds can only be used for eligible RCDI activities and must be used to support the overall purpose of the RCDI program.

(b) In-kind contributions such as salaries, donated time and effort, real and nonexpendable personal property, and goods and services cannot be used as matching funds.

(c) Grant funds and matching funds must be used in equal proportions. This does not mean funds have to be used equally by line item.

The request for advance or reimbursement and supporting documentation must show that RCDI fund usage does not exceed the cumulative amount of matching funds used.

(d) Grant funds will be disbursed pursuant to relevant provisions of 2 CFR parts 200 and 400 (*see,* the ''Federal Award Information'' section) for matching funds documentation and pre-award requirements.

(e) The intermediary is responsible for demonstrating that matching funds are available and committed for a period of not less than the grant performance period to the RCDI proposal. Matching funds may be provided by the intermediary or a third party. Other Federal funds may be used as matching funds if authorized by statute and the purpose of the funds is an eligible RCDI purpose.

(f) RCDI funds will be disbursed on an advance or reimbursement basis. Matching funds cannot be expended prior to execution of the RCDI Grant Agreement.

(g) Applicants must provide matching funds in an amount at least equal to the amount of the Federal grant. Successful applications will be selected by the Agency for funding and will be awarded from funds appropriated for the RCDI program.

3. *Other Program Requirements.* The recipient and beneficiary, but not the intermediary, must be in an eligible rural area. The physical location of the recipient's office that will be receiving the financial and technical assistance must be in an eligible rural area. If the recipient is a low-income community, the median household income of the area where the office is located must be at or below 80 percent of the State or national median household income, whichever is higher. The applicable Rural Development State Office can assist in determining the eligibility of an area. A listing of Rural Development State Office contacts can be found at the following link: *https://www.rd.usda.gov/files/CF_State_Office_Contacts.pdf.* A map showing eligible rural areas can be found at the following link: *https://eligibility.sc.egov.usda.gov/eligibility/welcomeAction.do?pageAction=RBSmenu.*

(a) RCDI grantees that have an outstanding grant over 3 years old, as of the application due date in this Notice, will not be eligible to apply for this round of funding. Grant and matching funds must be utilized in a timely manner to ensure that the goals and objectives of the program are met.

(b) Individuals cannot be recipients.

(c) The intermediary must provide a program of financial and technical assistance to the recipient.

(d) The intermediary organization must have been legally organized for a minimum of three years and have at least three years prior experience working with private nonprofit community-based housing and development organizations, low-income rural communities, or tribal organizations in the areas of housing, community facilities, or community and economic development. The intermediary organization may contract with a nonaffiliated organization for not more than 49 percent of the awarded grant to provide the proposed technical assistance.

(e) Proposals must be structured to utilize the grant funds within 3 years from the date of the award.

(f) Each applicant, whether individually or jointly, may only submit one application for RCDI funds under this Notice. This restriction does not preclude the applicant from providing matching funds for other applications.

(g) Recipients can benefit from more than one RCDI application; however, after grant selections are made, the recipient can only benefit from multiple RCDI grants if the type of financial and technical assistance the recipient will receive is not duplicative. The services described in multiple RCDI grant applications must have separate and identifiable accounts for compliance purposes.

(h) The intermediary and the recipient cannot be the same entity. The recipient can be a related entity to the intermediary, if it meets the definition of a recipient, provided the relationship does not create a Conflict of Interest that cannot be resolved to Rural Development's satisfaction.

(i) If the recipient is a low-income rural community, identify the unit of government to which the financial and technical assistance will be provided (*e.g.,* town council or village board). The financial and technical assistance must be provided to the organized unit of government representing that community, not the community at large.

(j) An intermediary proposing to serve one or more Federally recognized Tribes must include a resolution of support with its application from the Tribes it proposes to serve. If the resolution of support is not submitted for each Tribe, the Tribe will be considered ineligible as a recipient. This requirement is being added to ensure collaboration during the application process between intermediaries and all Tribes that they propose to serve.

(k) Applicants for set aside funds must indicate that they are applying for set aside funds and may not submit a duplicate application for regular RCDI funds.

D. Application and Submission Information

1. *Address to Request Application Package.* Entities wishing to apply for assistance may download the application documents and requirements delineated in this Notice from the RCDI website: *https://www.rd.usda.gov/programs-services/community-facilities/rural-community-development-initiative-grants.* Application information for electronic submissions may be found at *https://www.grants.gov.*

Applicants may also request paper application packages from the Rural Development office in their state. A list of Rural Development State Office contacts can be found via *https://www.rd.usda.gov/files/CF_State_Office_Contacts.pdf.*

2. *Content and Form of Application Submission.* If the applicant is ineligible or the application is incomplete, the Agency will inform the applicant in writing of the decision, reasons therefore, and its appeal rights and no further evaluation of the application will occur.

A complete application for RCDI funds must include the following:

(a) A summary page, double-spaced between items, listing the following:

(This information should not be presented in narrative form.)

- Applicant's name,
- Applicant's address,
- Applicant's telephone number,
- Name of applicant's contact person, email address and telephone number,
- County where applicant is located,
- Congressional district number where applicant is located,
- Amount of grant request, and
- Number of recipients.

(b) A detailed Table of Contents containing page numbers for each component of the application.

(c) A project overview, no longer than one page, including the following items, which will also be addressed separately and in detail under ''Building Capacity and Expertise'' of the ''Evaluation Criteria.''

- The type of technical assistance to be provided to the recipients and how it will be implemented.
- How the capacity and ability of the recipients will be improved.
- The overall goals to be accomplished.
- The benchmarks to be used to measure the success of the program.

Benchmarks should be specific and quantifiable.

(d) Organizational documents, such as a certificate of incorporation and a current good standing certification from

the Secretary of State where the applicant is incorporated and other similar and valid documentation of current status, from the intermediary that confirms it has been legally organized for a minimum of three years as the applicant entity.

(e) Verification of source and amount of matching funds, (*e.g.,* a copy of a complete bank statement if matching funds are in cash or a copy of the confirmed funding commitment from the funding source).

The verification must show that matching funds are available for the duration of the grant performance period. The verification of matching funds must be submitted with the application, or the application will be considered incomplete.

The applicant will be contacted by the Agency prior to grant award to verify that the matching funds provided with the application continue to be available. The applicant will have 15 days from the date contacted to submit verification that matching funds continue to be available.

If the applicant is unable to provide the verification within that timeframe, the application will be considered ineligible. The applicant must maintain bank statements on file or other documentation for a period of at least three years after grant closing except that the records shall be retained beyond the three-year period if audit findings have not been resolved.

(f) The following information for each recipient:

- Recipient's entity name,
- Complete address (mailing and physical location, if different),
- County where located,
- Number for Congressional district where recipient is located,
- Contact person's name, email address and telephone number and,
- Form RD 400–4, ''Assurance Agreement.'' If the Form RD 400–4 is not submitted for each recipient, the recipient will be considered ineligible. No information pertaining to that recipient will be included in the income or population scoring criteria and the requested funding may be adjusted due to the deletion of the recipient.

(g) Submit evidence that each recipient entity is eligible. Documentation must be submitted to verify recipient eligibility. Links to websites are not acceptable. Acceptable documentation varies depending on the type of recipient:

(1) *Nonprofits*—provide a current valid letter confirming nonprofit status from the Secretary of State of the State of incorporation, a current good standing certification from the Secretary of State of the State of incorporation, or other valid documentation of current nonprofit status of each recipient.

A nonprofit recipient must provide evidence that it is a valid nonprofit when the intermediary applies for the RCDI grant. Organizations with pending requests for nonprofit designations are not eligible.

(2) *Low-income rural community*—provide evidence the entity is a public body (*e.g.,* copy of Charter, relevant Acts of Assembly, relevant court orders (if created judicially) or other valid documentation), a copy of the 2010 census data to verify the population, and 2010 American Community Survey (ACS) 5-year estimates (2006–2010 data set) data as evidence that the median household income is at, or below, 80 percent of either the State or national median household income. We will only accept data and printouts from *https://data.census.gov/cedsci/.*

(3) *Federally recognized Tribes*—The 2023 list is available at 88 FR 2112, pages 2112–2116 at the following link: *https://www.govinfo.gov/content/pkg/FR-2023-01-12/pdf/2023-00504.pdf.* For Tribes that received federal recognition status publication, outside the publication cited above, statutory citations and additional documentation will suffice.

An intermediary proposing to serve one or more federally recognized Tribes must include a resolution of support with its application from the Tribes it proposes to serve. If the resolution of support is not submitted for each Tribe, the Tribe will be considered ineligible as a recipient. This requirement is being added to ensure collaboration during the application process between intermediaries and all Tribes that they propose to serve.

(4) Applicants for set aside funds must indicate that they are applying for set aside funds. Applicant must identify the Persistent Poverty County for each recipient. All recipients must be located in a Persistent Poverty County to be eligible for the Persistent Poverty County set aside. Counties that are considered to be Persistent Poverty may be found under the map entitled ''Persistent Poverty'' on the following website: *https://www.ers.usda.gov/data-products/poverty-area-measures/descriptions-and-maps/* or contact your Rural Development State Office at the following link: *https://www.rd.usda.gov/files/CF_State_Office_Contacts.pdf.*

(h) Each of the ''Evaluation Criteria'' must be addressed specifically and individually by category. Present these criteria in narrative form. Narrative (not including attachments) must be limited to five pages per criterion. The ''Population and Income'' criteria for recipient locations can be provided in the form of a list; however, the source of the data must be included on the page(s).

(i) A timeline identifying specific activities and proposed dates for completion.

(j) A detailed project budget that includes the RCDI grant amount and matching funds. This should be a line-item budget, by category. Categories such as salaries, administrative, other, and indirect costs that pertain to the proposed project must be clearly defined. Supporting documentation listing the components of these categories must be included. The budget should be dated: year 1, year 2, and year 3, as applicable.

(k) The indirect cost category in the project budget should be used only when a grant applicant has a federally negotiated indirect cost rate. A copy of the current rate agreement must be provided with the application. Non-federal entities that have never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200-States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph (D)(1)(b), may use the de minimis rate of 10 percent of modified total direct costs (MTDC).

(l) Form SF–424, ''Application for Federal Assistance.''

(Do not complete Form SF–424A, ''Budget Information.'' A separate line-item budget should be presented as described in Letter (j) of this section.)

(m) Certification of Non-Lobbying Activities, RD Instruction 1940–Q Exhibit A–1, ''Certification for Contracts, Grants and Loans'' or equivalent.

(n) Standard Form LLL, ''Disclosure of Lobbying Activities,'' if applicable.

Applicants must collect and maintain data provided by recipients on race, sex, and national origin and ensure Ultimate Recipients collect and maintain this data. Race and ethnicity data will be collected in accordance with OMB **Federal Register** notice, ''Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity'' (62 FR 58782), October 30, 1997. Sex data will be collected in accordance with Title IX of the Education Amendments of 1972. These items should not be submitted with the application but should be available upon request by the Agency.

The applicant and the recipient must comply with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, the Americans

with Disabilities Act (ADA), section 504 of the Rehabilitation Act of 1973, Age Discrimination Act of 1975, Executive Order 12250, Executive Order 13166 Limited English Proficiency (LEP), and 7 CFR part 1901, subpart E.

(o) Identify and report any association or relationship with Rural Development employees. (A statement acknowledging whether or not a relationship exists is required.)

3. *System for Award Management and Unique Entity Identifier.* At the time of application, each applicant must have an active registration in the System for Award Management (SAM) before submitting its application in accordance with 2 CFR part 25 (*https://www.ecfr.gov/current/title-2/subtitle-A/chapter-I/part-25*). In order to register in SAM, entities will be required to obtain a Unique Entity Identifier (UEI). Instructions for obtaining the UEI are available at *https://sam.gov/content/entity-registration.*

(a) Applicants must maintain an active SAM registration, with current, accurate and complete information, at all times during which it has an active Federal award or an application under consideration by a Federal awarding agency.

(b) Applicants must ensure they complete the Financial Assistance General Certifications and Representations in SAM.

(c) Applicants must provide a valid UEI in its application, unless determined exempt under 2 CFR 25.110 (*https://www.ecfr.gov/current/title-2/subtitle-A/chapter-I/part-25/subpart-A/section-25.110*).

(d) Each applicant must provide documentation that it is registered in SAM and include its UEI number. If the applicant does not provide documentation confirming that it is registered in SAM and its UEI number, the application will not be considered for funding.

(e) The Agency will not make an award until the applicant has complied with all SAM requirements including providing the UEI. If an applicant has not fully complied with the requirements by the time the Agency is ready to make an award, the Agency may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

4. *Submission Dates and Times.* Completed applications must be submitted using one of the following methods:

• *Paper submissions:* Paper application must be received by 4:00 p.m. local time by the Rural Development State Office where the applicant's headquarters is located. July 3, 2023. Applicants intending to mail applications must provide sufficient time to permit delivery on or before the closing deadline date and time. Acceptance by the United States Postal Service or private mailer does not constitute delivery. Facsimile (FAX), electronic mail, and postage due applications will not be accepted. The application dates and times are firm. The Agency will not consider any application received after the deadline. To submit a paper application, the original application package must be submitted to the Rural Development State Office where the applicant's headquarters is located. The address for the headquarters of each USDA Rural Development State Office can be accessed at *https://www.rd.usda.gov/files/CF_State_Office_Contacts.pdf.* The applicant should contact the USDA Rural Development State Office to see if applications may be submitted to Field Offices within the state.

Applicants may also request paper application packages from the Rural Development office in their state. A list of Rural Development State Office contacts can be found via *https://www.rd.usda.gov/files/CF_State_Office_Contacts.pdf.*

• *Electronic submissions:* Applications will not be accepted via FAX or electronic mail. Applicants may file an electronic application at *https://www.grants.gov.* Applicants wanting to apply for assistance may download the application documents and requirements as stated in this Notice from the RCDI website: *https://www.rd.usda.gov/programs-services/community-facilities/rural-community-development-initiative-grants.* Application information for electronic submissions may be found at *https://www.Grants.gov/.* Electronic applications must be submitted via *Grants.gov* by 11:59 p.m. Eastern Time on June 28, 2023. The application dates and times are firm. The Agency will not consider any application received after the deadline. Follow the instructions at *Grants.gov* for registering and submitting an electronic application. If a system problem or technical difficulty occurs with an electronic application, please use the customer support resources available at the *Grants.gov* website.

Technical difficulties applying through *Grants.gov* will not be a reason to extend the application deadline. If an application is unable to be submitted through *Grants.gov,* a paper application must be received in the appropriate Rural Development State Office by the deadline noted previously.

5. *Intergovernmental Review.* This program is subject to Executive Order 12372, which requires intergovernmental consultation with state and local officials. Rural Development conducts intergovernmental consultation as implemented with 2 CFR part 415, subpart C. Not all States have chosen to participate in the intergovernmental review process. A list of participating States is available at the following website: *https://www.usda.gov/ocfo/federal-financial-assistance-policy/intergovernmental-review.*

6. *Funding Restrictions.* The following are examples of eligible and ineligible purposes under the RCDI program. Activities that meet the objectives of the RCDI program and meet the criteria outlined in this Notice will be considered eligible. These examples are illustrative and are not meant to limit the activities proposed in the application:

(a) The intermediary must work directly with the recipient, not the ultimate beneficiaries. For example:

The intermediary provides training and technical assistance to the recipients on developing and updating materials related to the prevention, treatment and recovery activities for opioid use disorder and ensures that high-quality training is provided to communities affected by the opioid epidemic.

(b) The intermediary provides training to the recipient on how to conduct homeownership education classes. The recipient then provides ongoing homeownership education to the residents of the community—the ultimate beneficiaries. This ''train the trainer'' concept fully meets the intent of this initiative. The intermediary is providing technical assistance that will build the recipient's capacity by enabling it to conduct homeownership education classes for the public.

This is an eligible purpose. However, if the intermediary directly provided homeownership education classes to individuals in the recipient's service area, this would not be an eligible purpose because the recipient would be bypassed.

(c) If the intermediary is working with a low-income community as the recipient, the intermediary must provide the technical assistance to the entity that represents the low-income community and is identified in the application. Examples of entities representing a low-income community are a village board or a town council.

If the intermediary provides technical assistance to the Board of the low-income community on how to establish a cooperative, this would be an eligible purpose. However, if the intermediary works directly with individuals from the community to establish the cooperative, this is not an eligible purpose.

The recipient's capacity is built by learning skills that will enable it to support sustainable economic development in its community on an ongoing basis.

(d) The intermediary may provide technical assistance to the recipient on how to create and operate a revolving loan fund. The intermediary may not monitor or operate the revolving loan fund. RCDI funds, including matching funds, cannot be used to fund revolving loan funds.

(e) The intermediary may work with recipients to build their capacity to provide planning and leadership development training. The recipients of this training would be expected to assume leadership roles in the development and execution of regional strategic plans. The intermediary would work with multiple recipients in helping communities recognize their connections to the greater regional and national economies.

(f) The intermediary could provide training and technical assistance to the recipients on developing emergency shelter and feeding, short-term housing, search and rescue, and environmental accident, prevention, and cleanup program plans. For longer term disaster and economic crisis responses, the intermediary could work with the recipients to develop job placement and training programs and develop coordinated transit systems for displaced workers.

7. *Other Submission Requirements.* Fund uses must be consistent with the RCDI purpose. Eligible purposes of grant funds include, but are not limited to, the following:

(a) Provide technical assistance to develop recipients' capacity and ability to undertake projects related to housing, community facilities, or community and economic development, (*e.g.,* the intermediary hires a staff person to provide technical assistance to the recipient or the recipient hires a staff person, under the supervision of the intermediary, to carry out the technical assistance provided by the intermediary). Hiring must support the intermediary's training purpose. Additional staff can be hired as a secondary purpose needed to carry out technical assistance/training to the recipient and must support the intermediary's training purpose.

(b) Develop the capacity of recipients to conduct community development programs, (*e.g.,* homeownership education or training for business entrepreneurs).

(c) Develop the capacity of recipients to conduct developmental initiatives (*e.g.,* programs that support micro-enterprise and sustainable development).

(d) Develop the capacity of recipients to increase their leveraging ability and access to alternative funding sources by providing training and staffing.

(e) Develop the capacity of recipients to provide the technical assistance component for essential community facilities projects.

(f) Assist recipients in completing pre-development requirements for housing, community facilities, or community and economic development projects by providing resources for professional services, *e.g.,* architectural, engineering, or legal. While this is an eligible purpose, applicant needs to ensure the capacity of the recipient is being expanded with appropriate training during the process.

(g) Improve recipient's organizational capacity by providing training and resource material on developing strategic plans, board operations, management, financial systems, and information technology.

(h) Purchase of computers, software, and printers is limited to $10,000 per award at the recipient level when directly related to the technical assistance program being undertaken by the intermediary.

(i) Provide funds to recipients for training-related travel costs and training expenses related to RCDI.

The following is a list of ineligible uses of grant funds:

- Pass-through grants, and any funds provided to the recipient in a lump sum that are not reimbursements.
- Funding a revolving loan fund (RLF).
- Construction (in any form).
- Salaries for positions involved in construction, renovations, rehabilitation, and any oversight of these types of activities.
- Intermediary preparation of strategic plans for recipients.
- Funding prostitution, gambling, or any illegal activities.
- Grants to individuals.
- Funding a grant where there may be a conflict of interest, or an appearance of a conflict of interest, involving any action by the Agency.
- Paying obligations incurred before the beginning date without prior Agency approval or after the ending date of the grant agreement.
- Purchasing real estate.
- Improvement or renovation of the grantee or recipient's office space or for the repair or maintenance of privately-owned vehicles.
- Any purpose prohibited in 2 CFR part 200 or 400.
- Using funds for recipient's general operating costs.
- Using grant or matching funds for Individual Development Accounts.
- Purchasing vehicles.
- In accordance with 31 U.S.C. 1345, ''Expenses of Meetings,'' appropriations may not be used for travel, transportation, and subsistence expenses for a meeting. RCDI grant funds cannot be used for these meeting-related expenses. Matching funds may, however, be used to pay for these expenses.

RCDI funds may be used to pay for a speaker as part of a program, equipment to facilitate the program, and the actual room that will house the meeting.

RCDI funds cannot be used for meetings; they can, however, be used for travel, transportation, or subsistence expenses for program-related training and technical assistance purposes. Any training not delineated in the application must be approved by the Agency to verify compliance with 31 U.S.C. 1345. Travel and per diem expenses (including meals and incidental expenses) will be allowed in accordance with 2 CFR parts 200 and 400.

E. Application Review Information

1. *Criteria*—All eligible and complete applications will be evaluated and scored based on the selection criteria and weights contained in 2 CFR parts 200 and 400. Failure to address any of the application criteria by the application deadline will result in the application being determined ineligible, and the application will not be considered for funding.

All applications that are complete and eligible will be scored and ranked competitively. The categories for scoring criteria used are the following:

(a) Building Capacity and Expertise—Maximum 40 Points

The applicant must demonstrate how it will improve the recipients' capacity, through a program of financial and technical assistance, as it relates to the RCDI purposes.

Capacity—Building financial and technical assistance should provide new functions to the recipients or expand existing functions that will enable the recipients to undertake projects in the

areas of housing, community facilities, or community and economic development that will benefit the community. Capacity-building financial and technical assistance may include, but is not limited to: training to conduct community development programs (*e.g.,* homeownership education, or the establishment of minority business entrepreneurs, cooperatives, or micro-enterprises); organizational development (*e.g.,* assistance to develop or improve board operations, management, and financial systems); instruction on how to develop and implement a strategic plan; instruction on how to access alternative funding sources to increase leveraging opportunities; and, staffing (*e.g.,* hiring a person at intermediary or recipient level to provide technical assistance to recipients).

The program of financial and technical assistance that is to be provided, its delivery, and the measurability of the program's effectiveness will determine the merit of the application.

All applications will be competitively ranked and the applications providing the most improvement in capacity development and measurable activities being ranked the highest.

The narrative response must contain the following items. This list also contains the points for each item.

(1) Describe the nature of financial and technical assistance to be provided to the recipients and the activities that will be conducted to deliver the technical assistance (10 Points).

(2) Explain how financial and technical assistance will develop or increase the recipient's capacity. Indicate whether a new function is being developed or if existing functions are being expanded or performed more effectively (7 Points).

(3) Identify which RCDI purpose areas will be addressed with this assistance: Housing, community facilities, or community and economic development (3 Points).

(4) Describe how the results of the technical assistance will be measured and describe the benchmarks to be used to measure effectiveness. Benchmarks should be specific and quantifiable (5 Points).

(5) Demonstrate that the applicant/intermediary has conducted programs of financial and technical assistance and achieved measurable results in the areas of housing, community facilities, or community and economic development in rural areas (10 Points).

(6) Provide in a chart or excel spreadsheet, the organization name, point of contact, address, phone number, email address, and the type and amount of the financial and technical assistance the applicant organization has provided to the following for the last 3 years (5 Points).

- Nonprofit organizations in rural areas.
- Low-income communities in rural areas (also identify the type of entity, *e.g.,* city government, town council, or village board).
- Federally recognized Tribes or any other culturally diverse organizations.

(b) Soundness of Approach—Maximum 15 Points

The applicant can receive up to 15 points for soundness of approach. The overall proposal will be considered under this criterion.

The maximum of 15 points for this criterion will be based on the following:

(1) The proposal fits the objectives for which applications were invited, is clearly stated, and the applicant has defined how this proposal will be implemented (7 Points).

(2) The ability to provide the proposed financial and technical assistance based on prior accomplishments (6 Points).

(3) Cost effectiveness will be evaluated based on the budget in the application. The proposed grant amount and matching funds should be utilized to maximize capacity building at the recipient level (2 Points).

(c) Population and Income—Maximum 15 Points

Population is based on the average population from the 2010 census data for the communities in which the recipients are located. The physical address (*i.e.,* street address), not a P.O. Box or other mailing address, for each recipient must be used for this criterion. Community is defined for scoring purposes as a city, town, village, county, parish, borough, Indian reservation or census-designated place where the recipient's office is physically located.

The applicant must submit the census data from the following website in the form of a printout to verify the population figures used for each recipient. The data can be accessed on the internet at *https://data.census.gov/cedsci/.* Enter location, P1 (*i.e.,* Parma, Idaho, P1) and click ''search''; the name and population data for each recipient location must be listed in this section.

The average population of the recipient locations will be used and will be scored as follows in the table illustrated below:

Population	Scoring (points)
10,000 or less	5
10,001 to 20,000	4
20,001 to 30,000	3
30,001 to 40,000	2
40,001 to 50,000	1

The average of the median household income for the communities where the recipients are physically located will determine the points awarded. The physical address, not mailing address, for each recipient must be used for this criterion. Applicants may compare the average recipient median household income to the State median household income or the national median household income, whichever yields the most points. The national median household income to be used is $51,914.

The applicant must submit the income data in the form of a printout of the applicable information from the following website to verify the income for each recipient. The data being used is from the 2010 American Community Survey (ACS) 5-year estimates (2006–2010 data set). The data can be accessed on the internet at *https://data.census.gov/cedsci/;* enter location, S1903 (*i.e.,* Parma, Idaho, S1903), click on ''Search,'' click the ''+'' symbol to expand the table, and select the 2010 ACS–5-year estimates table. Use the Household and Median Income column. The name and income data for each recipient location must be listed in this section. Points will be awarded as follows in the table illustrated below:

Average recipient median income	Scoring (points)
Less than or equal to 70 percent of state or national median household income	10
Greater than 70, but less than or equal to 80 percent of state or national median household income	5
In excess of 80 percent of state or national median household income	0

(d) State Director's Points Based on Project Merit—Maximum 10 Points

(1) This criterion will be addressed by the Agency, not the applicant.

(2) The State Director may award up to 10 discretionary points for the highest priority project in each state, up to 7 points for the second highest priority project in each state and up to 5 points for the third highest priority project.

Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.*

Provided that all other requirements set forth in the notice are otherwise met, the discretionary points may be awarded to applicants proposing to advance either of the following three key priorities:

(a) Reducing climate pollution and increasing resilience to the impacts of climate change through economic support to rural communities (up to 3 points). Priority will be given to proposals that address climate crisis through projects that:

• reduce climate pollution; promote energy efficiency and clean transportation; increase renewable energy production; revitalize recreation economies and the economies of coal, oil and gas, and power plant communities; increase resilience to the impacts of climate change; protect the public; and conserve our lands, waters, and biodiversity or

• spur well-paying union jobs and economic growth, especially through innovation, commercialization, deployment of clean energy technologies and infrastructure or

• advance environmental justice in historically marginalized and other communities overburdened by pollution where economic hurdles include underinvestment in housing, transportation, water, wastewater, and clean energy infrastructure, as well as workforce development and health care needs.

Priority Points: Applicant can receive priority points through one of two options listed below:

Option 1: Applicants will receive priority points if the project is located in or serving an energy community (fossil fuel dependent—coal, oil and gas, and power plant communities) whose economic well-being ranks in the most distressed tier of the Distressed Communities Index. The energy community list is defined by the Report to the President on Empowering Workers Through Revitalizing Energy Communities: *https://netl.doe.gov/IWGInitialReport.* The Distressed Communities Index provides a score between 1–100 for every community at the zip code level. The most distressed tier of the index are those communities with a score over 80. Please use the look up map (*https://ruraldevelopment.maps.arcgis.com/apps/webappviewer/index.html?id=86027863e066487ca1b33dc9217a70d1*) or list at the following link: *https://www.rd.usda.gov/sites/default/files/FY2023-Distressed-Energy-List.xlsx* to determine if your project qualifies for priority points.

Option 2: Applicants will receive priority points by demonstrating through written narrative how proposed climate-impact projects improve the livelihoods of community residents and meet pollution mitigation or clean energy goals.

(b) Priority points (up to 3 points) may be awarded if the project is ensuring all rural residents have equitable access to RD programs and benefits from RD funded projects. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.*

(c) Priority points (up to 4 points) may be awarded if the project is assisting rural communities recover economically through more and better market opportunities and through improved infrastructure. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.* Applicants receive priority points if the project is located in or serving one of the top 10% of counties or county equivalents based upon county risk score in the United States. Please use the Economic Risk Assessment Dashboard to determine if the county your project serves qualifies for priority points. The top 10% of counties or county equivalents are highlighted in red on the dashboard. Please use the Economic Risk Assessment Dashboard (*https://public.tableau.com/app/profile/topher.aston/viz/ECONOMICRISKASSESSMENTDASHBOARD/Dashboard1#1*). U.S. Territories would obtain points by using local data regarding how economic risk factors in the dashboard have impacted proposed project area.

• These points may be awarded by the Rural Development State Director to any application(s) that benefits their State regardless of whether the applicant is headquartered in their State.

• When an intermediary submits an application that will benefit a State that is not the same as the State in which the intermediary is headquartered, it is the intermediary's responsibility to notify the State Director of the State which is receiving the benefit of its application. In such cases, State Directors awarding points to applications benefiting their state must notify the reviewing State in writing.

• Assignment of any points under this criterion requires a written justification and must be tied to and awarded based on how closely the application aligns with the Rural Development State Office's strategic goals.

(e) Administrator Discretionary Points—Maximum 20 Points

The Administrator may award up to 20 discretionary points for projects to address items such as geographic distribution of funds, emergency conditions caused by economic problems, natural disasters and other initiatives identified by the Secretary. The Administrator may also award points to any application that will advance the following key priorities:

Reducing climate pollution and increasing resilience to the impacts of climate change through economic support to rural communities. Priority will be given to proposals that address climate crisis through projects that:

• reduce climate pollution; promote energy efficiency and clean transportation; increase renewable energy production; revitalize recreation economies and the economies of coal, oil and gas, and power plant communities; increase resilience to the impacts of climate change; protect the public; and conserve our lands, waters, and biodiversity or

• spur well-paying union jobs and economic growth, especially through innovation, commercialization, deployment of clean energy technologies and infrastructure or

• advance environmental justice in historically marginalized and other communities overburdened by pollution where economic hurdles include underinvestment in housing, transportation, water, wastewater, and clean energy infrastructure, as well as workforce development and health care needs.

Priority Points: Applicants can receive priority points through one of two options listed below:

Option 1: Applicants will receive points if the project is located in or serving an energy community (fossil fuel dependent—coal, oil and gas, and power plant communities) whose economic well-being ranks in the most distressed tier of the Distressed Communities Index. The energy community list is defined by the Report to the President on Empowering Workers Through Revitalizing Energy Communities: *https://netl.doe.gov/IWGInitialReport*. The Distressed Communities Index provides a score between 1–100 for every community at the zip code level. The most distressed tier of the index are those communities with a score over 80. Please use the look up map (*https://ruraldevelopment.maps.arcgis.com/apps/webappviewer/index.html?id=86027863e066487ca1b33dc9217a70d1*) or list to

determine if your project qualifies for priority points.

Option 2: Applicants will receive points by demonstrating through written narrative how proposed climate-impact projects improve the livelihoods of community residents and meet pollution mitigation or clean energy goals.

(b) Priority points may be awarded if the project is ensuring all rural residents have equitable access to RD programs and benefits from RD funded projects. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.*

(c) Priority points may be awarded if the project is assisting rural communities recover economically through more and better market opportunities and through improved infrastructure. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.* Applicants receive priority points if the project is located in or serving one of the top 10% of counties or county equivalents based upon county risk score in the United States. Please use the Economic Risk Assessment Dashboard to determine if the county your project serves qualifies for priority points. The top 10% of counties or county equivalents are highlighted in red on the dashboard. Please use the Economic Risk Assessment Dashboard (*https://public.tableau.com/app/profile/topher.aston/viz/ECONOMICRISKASSESSMENTDASHBOARD/Dashboard1#1*). U.S. Territories would obtain points by using local data regarding how economic risk factors in the dashboard have impacted proposed project area.

2. *Review and Selection Process*—If requests exceed funds available, the applications will be rated and ranked on a national basis by a review panel based on the ''Application Review Information'' contained in this Notice. If any eligible applications for Persistent Poverty County set aside funding are not funded due to insufficient funds, such applications will be allowed to compete for available FY 2023 regular RCDI funds.

(a) If there is a tied score after the applications have been rated and ranked, the tie will be resolved by reviewing the scores for ''Building Capacity and Expertise'' and the applicant with the highest score in that category will receive a higher ranking. If the scores for ''Building Capacity and Expertise'' are the same, the scores will be compared for the next criterion, in sequential order, until the highest score can be determined.

(b) *Initial screening:* The Agency will screen each application to determine eligibility during the period immediately following the application deadline. Listed below are examples of reasons for rejection from previous funding rounds. The following reasons for rejection are not all inclusive; however, they represent the majority of the applications previously rejected.

- Recipients were not located in eligible rural areas based on the definition in this Notice.
- Applicants failed to provide evidence of recipient's status, *i.e.,* documentation supporting nonprofit evidence of organization.
- Applicants failed to provide evidence of committed matching funds or matching funds were not committed for a period at least equal to the grant performance period.
- Application did not follow the RCDI structure with an intermediary and recipients.
- Recipients were not identified in the application.
- Intermediary did not provide evidence it had been incorporated for at least three years as the applicant entity.
- Applicants failed to address the ''Application Review Information'' in this Notice.
- The purpose of the proposal did not qualify as an eligible RCDI purpose.
- Inappropriate use of funds (*e.g.,* construction or renovations).
- The applicant proposed providing financial and technical assistance directly to individuals.
- The application package was not received by closing date and time.

3. *Anticipated Announcement and Federal Award Dates*—August 15, 2023.

F. Federal Award Administration Information

1. *Federal Award Notices*—Within the limit of funds available for such purpose, the awarding official of the Agency shall make grants in ranked order to eligible applicants under the procedures set forth in this Notice.

Successful applicants will receive a selection letter by mail containing instructions on requirements necessary to proceed with execution and performance of the award. This letter is not an authorization to begin performance. In addition, selected applicants will be requested to verify that components of the application have not changed at the time of selection and on the award obligation date, if requested by the Agency.

The award is not approved until all information has been verified, and the awarding official of the Agency has signed Form RD 1940–1, ''Request for Obligation of Funds'' and the grant agreement.

Unsuccessful applicants will receive notification, including notification of appeal rights, by mail.

2. *Administrative and National Policy Requirements*—There are no known unusual Administrative and National Policy Requirements associated with the Community Facilities Program.

3. *Reporting*—After grant approval and through grant completion, you will be required to provide the following, as indicated in the Grant Agreement:

(a) SF–425, ''Federal Financial Report'' and SF–PPR, ''Performance Progress Report'' will be required on a quarterly basis (due 30 working days after each calendar quarter). The Performance Progress Report shall include the elements described in the grant agreement.

(b) Final financial and performance reports will be due 90 calendar days after the period of performance end date.

(c) A summary at the end of the final report with elements as described in the grant agreement to assist in documenting the annual performance goals of the RCDI program for Congress.

G. Federal Awarding Agency Contacts

Contact the Rural Development State Office where the applicant's headquarters is located. A list of Rural Development State Offices contacts can be found via *https://www.rd.usda.gov/files/CF_State_Office_Contacts.pdf.*

H. Build America, Buy America

The Infrastructure Investment and Jobs Act (IIJA) (Pub. L. 117–58), requires the following Buy America preference:

(a) All iron and steel used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(b) All manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.

(c) All construction materials are manufactured in the United States. This

means that all manufacturing processes for the construction material occurred in the United States.

Awards under this announcement for infrastructure projects to non-federal entities, defined pursuant to 2 CFR 200.1 as any State, local government, Indian tribe, Institution of Higher Education, or nonprofit organization, shall be governed by the requirements of section 70914 of the Build America, Buy America Act (BABAA) within the IIJA, and its implementing regulations. Infrastructure projects include structures, facilities, and equipment that generate, transport, and distribute fuel or energy, including electric vehicle (EV) charging stations. Infrastructure projects also include structures, facilities, and equipment for roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property.

In accordance with BABAA, however, USDA has determined that de minimis, small grants, and minor components shall be waived from the requirements of BABAA, pursuant to a public interest waiver that was granted to the Department on September 13, 2022. See *https://www.usda.gov/sites/default/files/documents/usda-departmentwide-de-minimis-small-grants-minor-components-waiver-final-approved-09132022.pdf.* Under such waiver, small grants below the Simplified Acquisition Threshold, which is currently set at $250,000 shall not be subject to BABAA. Additionally, de minimis and minor components, as described in the Department waiver, are also not subject to BABAA. Applicants and projects that are subject to BABAA may request other specific waivers, pursuant to the requirements posted at the USDA Office of the Chief Financial Officer Office website: *https://www.usda.gov/ocfo/federal-financial-assistance-policy/USDABuyAmericaWaiver.* For-profit entities and other entities not included in the definition of Non-Federal Entities, defined pursuant to 2 CFR 200.1, are not subject to BABAA.

Funding to Non-Federal Entities. Awardees that are Non-Federal Entities, defined by 2 CFR 200.1 as any State, local government, Indian tribe, Institution of Higher Education, or nonprofit organization, shall be governed by the requirements of section 70914 of the Build America, Buy America Act (BABAA) within the IIJA. Any requests for waiver of these requirements must be submitted pursuant to USDA's guidance available online at *https://www.usda.gov/ocfo/federal-financial-assistance-policy/USDABuyAmericaWaiver.*

I. Other Information

1. *Civil Rights Requirements*—All grants made under this Notice are subject to Title VI of the Civil Rights Act of 1964 as required by the USDA in 7 CFR part 15, subpart A and section 504 of the Rehabilitation Act of 1973, Title VIII of the Civil Rights Act of 1968, Title IX, Executive Order 13166 (Limited English Proficiency), Executive Order 11246, and the Equal Credit Opportunity Act of 1974.

2. *Paperwork Reduction Act*— The paperwork burden has been approved by the Office of Management and Budget (OMB) under OMB Control Number 0575–0180.

3. *National Environmental Policy Act*- All recipients under this notice are subject to the requirements of 7 CFR part 1970, available at: *https://rd.usda.gov/resources/environmental-studies/environmental-guidance.*

4. *Nondiscrimination Statement*—In accordance with Federal civil rights laws and USDA civil rights regulations and policies, the USDA, its Mission Areas, agencies, staff offices, 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/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.

Program information may be made available in languages other than English. Persons with disabilities who require alternative means of communication to obtain program information (*e.g.,* Braille, large print, audiotape, American Sign Language) should contact the responsible Mission Area, agency, or staff office; the USDA TARGET Center at (202) 720–2600 (voice and TTY); or the Federal Relay Service at (800) 877–8339.

To file a program discrimination complaint, a complainant should complete a Form AD–3027, USDA Program Discrimination Complaint Form, which can be obtained online at, *https://www.usda.gov/oascr/filing-program-discrimination-complaint-usda-customer* from any USDA office, by calling (866) 632–9992, or by writing a letter addressed to USDA. The letter must contain the complainant's name, address, telephone number, and a written description of the alleged discriminatory action in sufficient detail to inform the Assistant Secretary for Civil Rights about the nature and date of an alleged civil rights violation. The completed AD–3027 form or letter must be submitted to USDA by:

(1) *Mail:* U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue SW, Washington, DC 20250–9410; or

(2) *Fax:* (833) 256–1665 or (202) 690–7442; or

(3) *Email: program.intake@usda.gov.*

USDA is an equal opportunity provider, employer, and lender.

Joaquin Altoro,

Administrator, Rural Housing Service, USDA Rural Development.

[FR Doc. 2023–09520 Filed 5–3–23; 8:45 am]

BILLING CODE 3410–XV–P

DEPARTMENT OF AGRICULTURE

Rural Housing Service

[Docket No. RHS–22–MFH–0011]

Consolidated Multifamily Housing Technical Assistance Grant Program Notice of Funding Availability (NOFA) FY 2023

AGENCY: Rural Housing Service, Department of Agriculture (USDA).

ACTION: Consolidated notice of funding availability.

SUMMARY: The Rural Housing Service (RHS or the Agency), a Rural Development (RD) agency of the USDA, announces the availability of funding for Multifamily Housing Nonprofit Transfer Technical Assistance (MFH NP TA) Grants and Off-Farm Labor Housing Technical Assistance (Off-FLH TA) Grants. This funding is available for eligible technical assistance (TA) providers seeking grants to provide technical assistance services to qualified applicants.

DATES: Complete applications must be submitted in electronic format via CloudVault and must be received by noon E.T. on July 3, 2023.

All respondents must email a request to create a shared folder in CloudVault at least three (3) business days prior to the application deadline.

The General Section of this consolidated notice provides the application procedures and

requirements that are applicable to both programs in this notice. Program Sections A and B of this notice provide descriptions of the specific programs for which funding is made available and explains any additional procedures and requirements applicable to the specific program. Please be sure to read both the General Section and the Program Sections of this consolidated notice to ensure that all requirements have been responded to and are included with the application.

ADDRESSES: All applications made in response to this notice must be submitted electronically to the RHS Production and Preservation Division, Program Support Branch. Entities submitting more than one application must request separate CloudVault folders for each submission. All email requests must be sent to one of the following addresses: *NPTA.RFP@usda.gov* for MFH NP TA Grant applications or *RD.FLHTA@usda.gov* for FLH TA Grant applications.

This grant funding opportunity will also be announced on *www.Grants.gov.*

FOR FURTHER INFORMATION CONTACT: General questions about this consolidated notice may be directed to Stephanie Vergin, Policy Advisor, Production and Preservation Division, Multi-Family Housing, United States Department of Agriculture; Phone: 651–602–7820; or email at *NPTA.RFP@usda.gov* or *RD.FLHTA@usda.gov.*

Persons with disabilities who require alternative means of communication for program information (*e.g.,* Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720–2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877–8339.

SUPPLEMENTARY INFORMATION:

Background

This is the first year that MFH is issuing a consolidated notice for its technical assistance grant programs. MFH designed this consolidated notice with the intent to simplify the application process, better coordinate services for applicants, and ensure transparency and predictability in funding cycles. It is the Agency's belief that consolidating the MFH TA notices will avoid duplication of efforts within the communities it serves and better serve its rural stakeholders most in need of these programs. The RHS Production & Preservation Division will host a virtual workshop prior to the application deadline to provide general information and guidance regarding this notice. The workshop will be announced via GovDelivery notice and will also be posted on the MFH Programs website (*https://www.rd.usda.gov/programs-services/multi-family-housing-programs*). Prospective respondents are encouraged to read this entire notice thoroughly and attend the informational workshop for more information and clarification prior to submitting funding applications.

Organization of the Consolidated Notice

This notice is divided into two major sections, the General Section and Program Sections A–B. The standard forms, certifications, assurances, procedures, and requirements applicable to both technical assistance grant programs are included in the General Section of this notice. Program Sections A–B separately outline each technical assistance grant funding opportunity with program specific eligibility, statutory and regulatory requirements, and include the factors used for scoring and ranking applications, the grant award process, and any additional requirements and/or limitations specific to each program.

Please read both the General Section and Program Sections A–B of this notice carefully to ensure all application and program requirements are met. Not all respondents are eligible to receive awards under both funding opportunities identified within this consolidated notice.

Rural Development Priorities: The Agency encourages respondents to consider projects that will advance the following key priorities:

- Assisting rural communities to recover economically through more and better market opportunities and through improved infrastructure.
- Ensuring all rural residents have equitable access to RD programs and benefits from RD funded projects; and
- Reducing climate pollution and increasing resilience to the impacts of climate change through economic support to rural communities.

For further information, visit *https://www.rd.usda.gov/priority-points.*

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I. General Section

RHS administers the Multifamily Housing Programs that provide affordable multifamily rental housing in rural areas by financing projects geared for low-income, elderly, and disabled individuals and families as well as domestic farm laborers. The MFH programs extend their reach by guaranteeing loans for affordable rental housing designed for low to moderate-income residents in rural areas and towns. MFH Programs are administered, subject to appropriations, by the USDA as authorized under sections 514, 515, 516 and 521 of the Housing Act of 1949, as amended.

A. Program Descriptions

(1) Purpose of the Programs

The section 515 MFH NP TA Grants are intended to provide technical assistance to multifamily housing borrowers and applicants to facilitate the acquisition of section 515 properties by nonprofit organizations and public housing authorities.

The Off-FLH TA Grants are intended to provide technical assistance to qualified section 514 loan and section 516 grant applicants to encourage the development of domestic and migrant Off-FLH projects.

RHS has a strong interest in broad geographic availability of technical assistance services and expanding the pool of technical assistance providers. Respondents will compete in a national funding pool and multiple awards may be made in a single region. However, if there are qualified and eligible respondents, RHS will prioritize awarding at least one MFH NP TA Grant and one Off-FLH TA Grant in each of the following four geographic regions:

Midwestern Region: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI
Northeastern Region: CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA, VT, WV
Southern Region: AL, AR, FL, GA, KY, LA, MS, NC, OK, PR, SC, TN, TX, VI
Western Region: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY

Multifamily Housing's four geographic regions may also be found on the following website: *https://www.rd.usda.gov/programs-services/all-programs/multi-family-housing-programs.*

Each entity applying for funding under this notice, whether individually or jointly, is limited to submission of one grant application per technical assistance program, per geographic region. Entities applying in more than one geographic region must submit separate applications for each region in which they apply. Respondents may propose to serve single-State or multi-State areas within geographic regions.

(2) Statutory and Regulatory Authority

MFH NP TA Grants are authorized under section 764 of the Further Consolidated Appropriations Act, 2020 (Pub. L. 116–94); section 753 of the Consolidated Appropriations Act, 2021 (Pub. L. 116–260); and section 745 of the Consolidated Appropriations Act, 2022 (Pub. L. 117–103), section 745 of the Consolidated Appropriations Act, 2023 (Pub. L. 117–328) and implemented by 7 CFR part 3560.

MFH Off-FLH TA Grants are authorized under section 516(i) of the Housing Act of 1949, as amended; 42 U.S.C. 1486(i); and implemented by 7 CFR part 3560.

To be eligible for funding under this consolidated notice, respondents must meet all statutory and regulatory requirements applicable to the program(s) for which funding is sought. RD program regulations may be found at the following link: *https://www.rd.usda.gov/page/regulations-and-guidance.*

(3) Definitions and Acronyms

The definitions and acronyms applicable to this notice are published at 7 CFR part 3560.11 *https://www.ecfr.gov/current/title-7/subtitle-B/chapter-XXXV/part-3560#3560.11;* 7 CFR 15.2 *https://www.ecfr.gov/current/title-7/subtitle-A/part-15;* 2 CFR part 200 *https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200;* and 2 CFR part 400 *https://www.ecfr.gov/current/title-2/subtitle-B/chapter-IV/part-400.*

The following supplementary definitions and acronyms are applicable to and for the purpose of this notice only.

Applicant—one who submits an application to receive technical assistance services from a technical assistance provider (Grantee), and *application* means such an application.

Broad-based nonprofit organization (as an Off-FLH loan/grant applicant)—nonprofit organization with a membership that reflects a variety of interests in the market area.

Capacity—demonstrated experience in the areas of federal grant administration and technical assistance program development and delivery.

Co-respondent—a separate legal entity made part of the application process by the primary respondent through a Memorandum of Understanding (MOU) or other agreement who will be accountable to the primary respondent for any federal award funds received.

Conflicts of interest—situations in which an officer, director, board member, agent, employee, or partner of the non-Federal entity being considered for a Federal award, any immediate family member of these parties, or any organization which employs or is about to employ any of these parties, have a competing personal, professional, financial, and/or other interest in activities performed under the Federal award or may receive a tangible personal benefit from activities performed under the Federal award which renders them unable, or gives the appearance of being unable, to be impartial in conducting/administering the Federal award.

Consultant—an individual who provides professional advice or services for a fee, but normally not as an employee of the engaging party. The term ''consultant'' may also include a firm that provides paid professional advice or services, or independent entities engaged under a grant to provide a specific service or product (product purchase or fee-for-service). They are not employees of the grantee, and no employer-employee relationship exists between the consultant and the grantee.

Contract—for the purpose of Federal financial assistance, a legal instrument by which a recipient or subrecipient purchases property or services needed to carry out the project or program under a federal award.

Contractor—an entity that receives a contract as defined in this section.

Curable deficiency—omission, error, or oversight that, if corrected, would not alter the review and/or scoring of an application in a positive or negative fashion.

Disallowed costs—charges to a federal award that the Federal awarding agency or pass-through entity determines to be unallowable, in accordance with the applicable Federal statutes, regulations, or the terms and conditions of the Federal award.

Expenditures—charges made by a non-Federal entity to a project or program for which a federal award was received.

Federal awarding agency—the Federal agency that provides a Federal award directly to a non-Federal entity.

Federal share—the portion of the Federal award costs that are paid using Federal funds.

Grant Agreement—a legal instrument of financial assistance between a Federal awarding agency or pass-through entity and a non-Federal entity that, consistent with 31 U.S.C. 6302, 6304: (1) Is used to enter into a relationship the principal purpose of which is to transfer anything of value to carry out a public purpose authorized by a law of the United States (see 31 U.S.C. 6101(3)); and not to acquire property or services for the Federal awarding agency or pass-through entity's direct benefit or use; (2) Is distinguished from a cooperative agreement in that it does not provide for substantial involvement of the Federal awarding agency in carrying out the activity contemplated by the Federal award; (3) Does not include an agreement that provides only: (i) Direct United States Government cash assistance to an individual; (ii) A subsidy; (iii) A loan; (vi) A loan guarantee; or (v) Insurance.

Grantee—a legal entity that has been awarded financial assistance under one of the Agency's grant programs and assumes responsibility for fiscal accountability for managing awarded funds, supervision of grant-supported activities, and submission of final reports.

Indirect Costs (facilities & administrative (F&A))—costs incurred for a common or joint purpose benefitting more than one cost objective, and not readily assignable to the cost objectives specifically benefitted, without effort disproportionate to the results achieved. To facilitate equitable distribution of indirect expenses to the cost objectives served, it may be necessary to establish a number of pools of indirect (F&A) costs. Indirect (F&A) cost pools must be distributed to benefitted cost objectives on bases that will produce an equitable result in consideration of relative benefits derived.

Indirect cost rate—a percentage established by a federal department or agency for a grantee organization, which the grantee uses in computing the dollar amount it charges to the grant to reimburse itself for indirect costs incurred in doing the work of the grant project.

Key personnel services—technical assistance service delivery and grant administration.

Market Area—the geographic or locational delineation of the market for a specific project, including outlying areas that will be impacted by the project, *i.e.,* the area in which alternative, similar properties effectively compete with the subject property.

Non-curable deficiency—omission, error, or oversight that, if corrected, would alter the review and/or scoring of the application in a positive or negative fashion.

Non-Federal Entity—a State, local government, Indian tribe, or nonprofit organization that carries out a federal award as a recipient or subrecipient.

Organizational conflicts of interest—situations in which the non-Federal

entity being considered for a federal award is unable, or appears to be unable, to be impartial in conducting/administering the Federal award because of its relationship with a parent company, affiliate, subsidiary organization, or other related organization or party.

Period of Performance—the total estimated time interval between the start of the initial grant award and the planned end date.

Primary Respondent (see Respondent)—one who submits an application, request, or plan required to be approved by an Agency as a condition to eligibility for Federal financial assistance, and *application* means such an application, request, or plan.

Respondent (see Primary Respondent).

Targeted service area—area targeted to receive technical assistance services.

Technical Assistance—technical expertise, information and services provided by eligible entities with the necessary knowledge, experience, and capacity to provide the services outlined in this notice to eligible respondents.

Commonly used Acronyms:

CFR Code of Federal Regulation
FLH Farm Labor Housing
MFH Multifamily Housing
NOFA Notice of Funding Availability
NP Nonprofit organization
OMB Office of Management and Budget
PHA Public Housing Authority RD Rural Development
RHS Rural Housing Service
SAM System for Award Management
SOW Statement of Work/Scope of Work
TA Technical Assistance
TDHE Tribally Designated Housing Entity
UEI Unique Entity Identifier USDA United States Department of Agriculture

(4) Application for Awards

Awards under these programs will be made on a competitive basis using specific selection criteria contained in Program Sections A and B of this notice.

The Agency advises all interested parties that expenses incurred in applying for this notice will be borne by and be at the respondent's sole risk.

B. Federal Award Information

Funding Opportunity Title: Consolidated MFH Technical Assistance Grant Program NOFA FY 2023.

Announcement Type: Notice of Funding Availability (NOFA).

Assistance Listing (AL) Numbers:

- Multifamily Housing Nonprofit Transfer Technical Assistance Grants: 10.494.
- Farm Labor Housing Technical Assistance Grants: 10.495.

Funding Opportunity Number: USDA–RD–HCFP–NPTA–OFFFLHTA.

Dates: Complete applications must be submitted in electronic format via CloudVault and must be received by noon E.T. on July 3, 2023. Refer to the **DATES** section of this notice for further details.

Funding Amounts:

- $6.9 million for MFH NP TA Grants
- $1 million for Off-FLH TA Grants

Available funding amounts for the technical assistance programs in this notice may also be found at the following link: *https://www.rd.usda.gov/programs-services/Multifamily-housing-programs.*

Type of Award: Technical Assistance Grants.

Award Amounts:

- The minimum and maximum award amounts per funded MFH NP TA Grant application are $100,000 and $500,000, respectively.
- The minimum and maximum award amounts per funded Off-FLH TA Grant application are $50,000 and $250,000, respectively.

Anticipated Award Date: The Agency anticipates making awards 120 days after the application deadline.

Performance Period: 24 months from executed grant agreement.

Renewal or Supplemental Awards: None.

Type of Assistance Instrument: Grant Agreement.

Respondents selected for funding will complete a grant agreement suitable to the Agency, which outlines the terms and conditions of the Grant award. The Agency may request changes to the Statement of Work (SOW) which will be incorporated into the grant agreement. If a selected grantee does not accept the terms of the Agency and/or does not deliver an executed Grant Agreement to the Agency within ten (10) business days after receiving the Grant Agreement with the Agency-approved SOW, the Agency may choose to rescind the award and select another grantee based on scoring without further notice.

The grant period of performance is 24 months with an extension allowed for up to an additional 12 months at the Agency's discretion. However, proposals should be structured to utilize all grant funds within 24 months from the date of the award. The grant term will be defined in the Grant Agreement and will become effective once signed by the Grantee and the Agency. Grant funds will be obligated within ten (10) business days after both parties have executed the Grant Agreement.

C. Eligibility Information

(1) Eligible Respondents

To be considered eligible for funding under this notice, all respondents are required to meet both the general eligibility requirements outlined below, as well as the program specific requirements outlined in Program Sections A and B of this notice.

Except as may be modified in Program Sections A and B of this notice, the general requirements, procedures, and principles outlined below apply to respondents for both funding opportunities contained in this notice.

(a) All respondents will be screened for eligibility to participate in the grant program using Treasury's Do Not Pay Portal in compliance with the Improper Payments Elimination and Recovery Improvement Act.

(b) Debarment and suspension information is required in accordance with 2 CFR 180 (OMB's Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement) supplemented by 2 CFR 417 (Nonprocurement Debarment and Suspension) if it applies. The section heading is ''What information must I provide before entering into a covered transaction with a Federal agency?'' located at 2 CFR 180.335. It is part of OMB's Guidance for Grants and Agreements concerning Governmentwide Debarment and Suspension. Respondents are not eligible if they have been debarred or suspended or otherwise excluded from, or ineligible for, participation in Federal assistance programs under 2 CFR parts 180 and 417.

(c) Conflicts of Interest. No Grantee funded under this notice or its officers, directors, board members, agents, employees, or partners can participate in conducting or administering the grant award if a real or apparent conflict of interest exists.

Entities applying for funding under this notice and all funded Grantees must disclose in writing any potential conflicts of interest to the Agency, including situations that would create a conflict of interest, potential for conflict of interest, or any appearance of a conflict of interest. Unless approved by the Agency, Grantees may not provide TA for projects in which they or their third-party affiliates have a direct or indirect ownership interest. Respondents must disclose all MFH projects in which they or their third-party affiliates have a direct or indirect ownership interest.

Unless approved by the Agency, neither the Grantee nor any officer, director, board member or partner of the Grantee may accept or share any compensation or remuneration, directly or indirectly, in any form whatsoever, from or with any party interested in the

activities performed under the grant agreement.

Unless approved by the Agency, neither the Grantee nor any officer, director, board member, partner or any person employed by the Grantee may accept compensation or remuneration contrary to the intentions of the grant agreement

Unless approved by the Agency, neither the Grantee nor any officer, director, board member or partner of the Grantee may be involved as an officer, director, board member or general partner in a business venture with an officer, director, board member or general partner of any other party interested in the activities performed under the grant agreement.

Grantees funded under this notice must maintain written standards of conduct governing organizational conflicts of interest and conflicts of interest related to the performance of its officers, directors, board members, agents, and employees in conducting/administering Federal grant awards. The standards of conduct must provide for disciplinary actions to be applied for violations of such standards by the Grantee and its directors, board members, officers, employees, and agents.

(2) Cost Sharing or Matching

There are no cost sharing or matching requirements for either program.

(3) Discretionary Points

Please refer to Program Sections A and B.

(4) Other

Each entity applying for funding under this notice, whether individually or jointly, may submit only one application per program, per geographic region. MFH's geographic regions are listed in the General Section A.1. of this notice.

The use of consultants/contractors for key personnel services (technical assistance service delivery and grant administration) is limited to a maximum of 20% of the total key personnel services budget. This requirement is intended to advance the Agency's goal of increasing the capacity of Agency-funded nonprofit TA providers to deliver technical assistance services directly to recipients.

The total direct and indirect administrative costs associated with the administration of the grant should not exceed 20% of the total technical assistance grant fund.

Any respondent with an open MFH Transfer or Off-FLH technical assistance funding award must demonstrate satisfactory progress toward completion of the work plan identified in their Agency approved grant agreement to be eligible for funding under this notice. In evaluating satisfactory progress, RHS will consider past performance in managing funds including, but not limited to, the ability to account for funds appropriately; timely use of funds received from RHS; meeting performance targets for completion of activities; and receipt of promised matching or leveraged funds.

D. Application and Submission Information

(1) Content and Form of Application Submissions

Applications to this notice must be submitted electronically via CloudVault using the process described below. The electronic application submission process may also be viewed at *www.grants.gov.*

(a) All applications made in response to this notice must be submitted electronically to the RHS Production and Preservation Division, Program Support Branch using the following process: All respondents must email a request to create a shared folder in CloudVault at least three (3) business days prior to the application deadline of July 3, 2023. Entities submitting more than one application must request separate CloudVault folders for each submission. All email requests must be sent to one of the following addresses: *NPTA.RFP@usda.gov* for MFH NP TA Grant applications or *RD.FLHTA@usda.gov* for FLH TA Grant applications. Email requests for CloudVault folders should contain the following information (at minimum):

(1) *Subject line:* TA Grant Application CloudVault Folder Request.

(2) *Body of email:* Respondent Name and Complete Contact Information.

(3) *Request language:* Please create a shared CloudVault folder for MFH NP TA Grant application or Off-FLH TA Grant application.

A shared CloudVault folder will be created within two (2) business days from the date the emailed request is received by RHS. An email will be sent to the respondent's valid submission email address with a link to the created shared CloudVault folder. All required application documents in accordance with this notice must be uploaded into the respondent's shared CloudVault folder. Respondent's access to the shared CloudVault folder will be removed when the submission deadline is reached. Any document(s) uploaded to CloudVault after the application deadline will not be considered. The Agency will provide responding entities with a written acknowledgement of receipt upon request. Please note: CloudVault is a USDA-approved cloud-based file sharing and synchronization system. CloudVault folders are not suitable nor intended for file storage due to agency file retention policies and space limitations. Therefore, the agency will remove all application-related files stored in shared CloudVault folders the latter of either 180 days from the application date, or once the application has been processed and the transaction has been closed.

(b) Forms, Requirements and Procedures for all Respondents.

All respondents are required to electronically submit signed copies of the standard forms, certifications, and assurances listed in this section, unless the requirements in the Program Section specify otherwise. All forms should be completed in their entirety using the most current versions of unexpired Rural Development or OMB-approved forms. All application packages must include a Table of Contents and a separate one-page sheet listing each of the Scoring Criteria from Program Sections A or B, followed by the page numbers of all relevant material and documentation contained within the submitted application materials to support those criteria.

(i) Except as may be modified in the Program Sections A and B, the forms and standard certifications and assurances required for all respondents are:

- SF–424, ''Application for Federal Assistance'' which can be obtained at: *https://www.grants.gov/*.
- Standard Form 424A, ''Budget Information-Non-Construction Programs'' which can be obtained at: *https://www.grants.gov/*.
- Negotiated Indirect Cost Rate Agreement (NICRA), if applicable, or a statement certifying the entity's election to charge the de minimis rate of 10% of the modified total direct costs (MTDC).
- Form SF–LLL, ''Disclosure Form to Report Lobbying,'' if applicable, or a statement certifying that the organization does not lobby.
- Form RD 3560–30, ''Certification of no Identity of Interest (IOI),'' if applicable: *http://forms.sc.egov.usda.gov/efcommon/eFileServices/eForms/RD3560-30.PDF*.
- Form RD 3560–31, ''Identity of Interest Disclosure/Qualification Certification'' if applicable (IOI is defined in 7 CFR 3560.11): *http://forms.sc.egov.usda.gov/efcommon/eFileServices/eForms/RD3560-31.PDF.*
- Form RD 400–4, ''Assurance Agreement'': *http://*

forms.sc.egov.usda.gov/efcommon/eFileServices/eForms/RD400-4.PDF.

• Form RD 400–6, ''Compliance Statement'': *https://forms.sc.egov.usda.gov/eForms/searchAction.do?page Action=BrowseForms&_MenuAction=Yes.*

(ii) All responding entities must include organizational status documents and current (within six months of this notice's deadline date) financial statements to evidence their status as a properly organized private or public nonprofit agency, or public/tribal housing authority, with the financial ability to carry out the approved objectives of the TA grant program under which funding is sought. This requirement includes (at minimum):

(A) Status (*i.e.,* Articles of Incorporation) as a NP or PHA.

(B) Good standing within the State or Tribe in which the entity is organized.

(C) Legal authority to provide services stated in the application under the applicable laws for the state(s) in which operation is proposed. (Examples of acceptable documentation for this requirement include, but are not limited to, bylaws, organizational charters, and statutes or regulations).

(D) Certification of no current or unresolved default or violation of any other Federal, Tribal, State, or local grant or loan agreement(s).

(E) The requirements above will also apply to all entities performing services on behalf of the respondent.

(2) System for Award Management and Unique Entity Identifier

(a) At the time of application, each respondent must have an active registration in the System for Award Management (SAM) before submitting its application in accordance with 2 CFR 25. In order to register in SAM, entities will be required to obtain a Unique Entity Identifier (UEI). Instructions for obtaining the UEI are available at *https://sam.gov/content/entity-registration.*

(b) Respondent must maintain an active SAM registration, with current, accurate and complete information, at all times during which it has an active Federal award or an application under consideration by a Federal awarding agency.

(c) Respondent must complete the Financial Assistance General Certifications and Representations in SAM.

(d) Respondent must provide a valid UEI in its application, unless determined exempt under 2 CFR 25.110.

(e) The Agency will not make an award until the respondent has complied with all SAM requirements including providing the UEI. If a respondent has not fully complied with the requirements by the time the Agency is ready to make an award, the Agency may determine that the respondent is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another respondent.

(3) Submission Dates and Times

Submission dates and times can be found in the **DATES** section of this notice.

(4) Intergovernmental Review

Applications under this notice are not subject to Executive Order 12372, ''Intergovernmental Review of Federal Programs.''

(5) Funding Restrictions

Refer to Program Sections A and B for Ineligible Grant Fund Purposes/Costs.

E. Application Review Information

(1) Application Review Criteria

To be eligible for funding under this notice, respondents must meet the criteria set forth in the individual program Sections A and B of this notice, as well as all general eligibility criteria as follows:

a. The application must be complete as specified by this notice;

b. The complete application must be received by the submission deadline specified in this notice;

c. The application proposal must be for authorized purposes; and

d. The respondent must be an eligible entity and must not currently be debarred, suspended, or delinquent on any Federal debt.

No application will be accepted after the specified deadline unless the date and time is extended by another notice published in the **Federal Register**. Applications will first be reviewed to determine if they meet the eligibility requirements outlined in this notice. If all eligibility requirements are met, applications will then be reviewed for completeness. If the Agency determines that any application is ineligible or incomplete, application processing will be discontinued, which means the application will be rejected and returned to the respondent without being scored.

RHS may contact respondents to clarify items and/or to correct curable (correctable) technical deficiencies identified within application packages after the application deadline is reached. RHS will notify respondents of any curable deficiencies and will do so on a uniform basis for all respondents. If deficiencies are not corrected within the period prescribed by RHS, the application will be rejected as incomplete, and will not be considered for funding.

Only applications meeting all the general eligibility criteria above will be scored and ranked. RHS will consider the scoring factors outlined in Program Sections A and B to score and rank application(s) for each TA program respectively. Points will be awarded only for factors that are well-documented in the application package and, in the opinion of the Agency, meet the objectives outlined in each of the evaluation criteria. References to external websites, publications, and/or other information not submitted as part of the application package will not be reviewed or considered. Therefore, full documentation and support of all criteria is recommended and encouraged.

Risk Review: The Agency may request additional documentation from selected respondents in order to evaluate the financial, management, and performance risk posed by awardees as required by 2 CFR 200.206. Based on the risk review, the Agency may apply special conditions that correspond to the degree of risk assessed, either pre-award or post-award.

If the Agency determines it is unable to select an application for funding, the respondent will be informed in writing. Such notification will include the reasons the respondent was not selected. The Agency will advise respondents whose applications do not meet eligibility and/or selection criteria of their review rights or appeal rights in accordance with 7 CFR part 11.

(2) Review and Selection Process

Refer to Program Sections A and B for program specific application reviewing, scoring and selection processes.

F. Federal Award Administration Information

(1) Federal Award Notice

The Agency will notify in writing respondents whose applications have been selected for funding. At the time of notification, the Agency will advise respondents what additional information and documentation is required along with a timeline for submitting the additional information.

(2) Administrative and National Policy Requirements

The following additional requirements apply to grantees selected for these TA Grant program awards:

(i) Grantees must complete Form RD 1942–46 ''Letter of Intent to Meet Conditions.''

(ii) Grantees must complete Form RD 1940–1, ''Request for Obligation of Funds.''

(iii) Grantees must use Form SF 270, ''Request for Advance or Reimbursement,'' to request reimbursements and provide receipts for expenditures, timesheets, and any other documentation to support the request for reimbursement, as determined by the Agency.

(iv) Grantees must maintain a financial management system that is acceptable to the Agency.

(v) Grantees must certify that the U.S. has not obtained an outstanding judgment against their organization in a Federal Court (other than in the United States Tax Court).

(vi) Awards made under this notice are subject to the provisions contained in the Consolidated Appropriations Act, 2021 (Pub. L. 116–260) Division E, Title VII sections 744 and 745 regarding felony convictions and corporate Federal tax delinquencies.

(vii) Workplace identification is required under the drug-free workplace requirements in 2 CFR 182, which provides guidance on the portion of the Drug-Free Workplace Act applicable to grants, as adopted by 2 CFR 421. Therefore, grantees must identify all organizational known workplaces by including the actual physical addresses of buildings (or parts of buildings) or other sites where work under the award takes place.

(viii) 2 CFR part 182 (Governmentwide Requirements for Drug-Free Workplace (Financial Assistance)) and 2 CFR part 421 (Requirements for Drug Free Workplace (Financial Assistance).

(3) Reporting

(i) Grantees must comply with reporting requirements of and 2 CFR part 200, and will provide the required financial status and project performance reports for the period after grant approval and throughout the grant period of performance as outlined in the Agency approved grant agreement.

(ii) Grantees must maintain records to document all activities and expenditures utilizing technical assistance grant funds. Receipts for expenditures will be included in this documentation.

(iii) Grantees must provide a final project performance report as outlined in the Agency approved grant agreement.

G. Federal Awarding Agency Contact(s)

Stephanie Vergin, Policy Advisor, Production and Preservation Division, Multi-Family Housing, United States Department of Agriculture at *NPTA.RFP@usda.gov* or *RD.FLHTA@usda.gov.*

H. Other Information

1. Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1995, (44 U.S.C. 3501 *et seq.*), OMB must approve all ''collection of information'' as defined at 42 U.S.C. 3504. In accordance with the Paperwork Reduction Act of 1995, the information collection reporting and recordkeeping requirements as covered in this notice, are exempt because the requirements are not imposed on 10 or more people, as defined at 44 U.S.C. 3502(3)(A)(i)).

RHS has concluded that the reporting requirements contained in this NOFA will involve less than 10 persons and do not require approval under the provisions of the Act.

2. National Environmental Policy Act

In accordance with the National Environmental Policy Act of 1969, Public Law 91–190, this funding announcement has been reviewed in accordance with 7 CFR part 1970 (Environmental Policies and Procedures). As permitted by 7 CFR 1970.51(b), The Agency has determined that because:

- this action meets the criteria established in 7 CFR 1970.53(f);
- no ''extraordinary circumstances exist'' as defined at 7 CFR 1970.52(a); and
- the action is not ''connected'' (see 40 CFR 1508.25(a)(1)) to other actions with potentially significant impacts, is not considered a ''cumulative action'' and;
- the action is not precluded by 40 CFR 1506.1.

Therefore, the Agency has determined that the action does not have a significant effect on the human environment, and therefore neither an Environmental Assessment nor an Environmental Impact Statement is required. All recipients under this notice are subject to the requirements of 7 CFR part 1970.

For Non-Construction Programs Under the National Environmental Policy Act (NEPA)

Technical assistance awards for financial and technical assistance under this notice are classified as a Categorical Exclusion according to 7 CFR 1970.53(b), and usually do not require any additional documentation. MFH will review each grant application to determine its compliance with 7 CFR 1970. The respondent may be asked to provide additional information or documentation to MFH with this determination.

3. Federal Funding Accountability and Transparency Act

All respondents, in accordance with 2 CFR part 25 (*https://www.ecfr.gov/current/title-2/part-25*), must be registered in SAM and have a UEI number as stated in Section D.2. of this notice. All recipients of Federal financial assistance are required to report information about first-tier subawards and executive total compensation in accordance with 2 CFR part 170 (*https://www.ecfr.gov/current/title-2/part-170*).

4. Civil Rights Act

All grants made under this notice are subject to Title VI of the Civil Rights Act of 1964 as required by the USDA (7 CFR part 15, subpart A (eCFR :: 7 CFR part 15 Subpart A—Nondiscrimination in Federally-Assisted Programs of the Department of Agriculture—Effectuation of Title VI of the Civil Rights Act of 1964) and section 504 of the Rehabilitation Act of 1973, Title VIII of the Civil Rights Act of 1968, Title IX of the Education Amendments of 1972, Executive Order 13166 (Limited English Proficiency), Executive Order 11246, the Equal Credit Opportunity Act of 1974, the Americans with Disabilities Act (ADA) of 1990, the Age Discrimination Act of 1975, Executive Order 12250, and 7 CFR part 1901, subpart E.

(i) All respondents must certify to compliance with 7 CFR part 15, subpart A—Nondiscrimination in Federally Assisted Programs of the Department of Agriculture—Effectuation of Title VI of the Civil Rights Act of 1964, by completing the Financial Assistance General Certification and Representations in SAM.

Civil Rights compliance includes, but is not limited to the following:

(a) Collecting and maintaining data provided by ultimate recipients on race, sex, and national origin.

(b) Collection of race and ethnicity data in accordance with Office of Management and Budget (OMB) **Federal Register** notice, ''Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity'' (published October 30, 1997 at 62 FR 58782). Sex data will be collected in accordance with Title IX of the Education Amendments of 1972.

This data should not be submitted with the application but should be available upon request by the Agency.

5. USDA Nondiscrimination Statement

In accordance with Federal civil rights laws and USDA civil rights regulations and policies, the USDA, its Mission Areas, agencies, staff offices, 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/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.

Program information may be made available in languages other than English. Persons with disabilities who require alternative means of communication to obtain program information (*e.g.,* Braille, large print, audiotape, American Sign Language) should contact the responsible Mission Area, agency, or staff office; the USDA TARGET Center at (202) 720–2600 (voice and TTY); or the Federal Relay Service at (800) 877–8339.

To file a program discrimination complaint, a complainant should complete a Form AD–3027, USDA Program Discrimination Complaint Form, which can be obtained online at *https://www.usda.gov/oascr/,* from any USDA office, by calling (866) 632–9992, or by writing a letter addressed to USDA. The letter must contain the complainant's name, address, telephone number, and a written description of the alleged discriminatory action in sufficient detail to inform the Assistant Secretary for Civil Rights (ASCR) about the nature and date of an alleged civil rights violation. The completed AD–3027 form or letter must be submitted to USDA by:

(1) *Mail:* U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue SW, Washington, DC 20250–9410; or

(2) *Fax:* (833) 256–1665 or (202) 690–7442; or

(3) *Email: program.intake@usda.gov*.

USDA is an equal opportunity provider, employer, and lender.

II. Program Sections

Organization of the Program Sections

Program Sections A and B of this notice provide descriptions for both of the specific programs. In addition to the requirements set forth in the General section, the following program sections outline additional procedures and requirements applicable to each program.

Both funding opportunities contained in this consolidated notice are identified in the following chart entitled Consolidated Multifamily Housing Technical Assistance Grant Program Funding Chart FY 2023. This chart includes Program Name, the Assistance Listing Number for each program, the Funding Amounts Available, and the Program Section Reference for program-specific application requirements.

CONSOLIDATED MULTIFAMILY HOUSING TECHNICAL ASSISTANCE GRANT PROGRAM FUNDING CHART

[FY 2023]

TA program name	Assistance listing No.	Funding available (million)	Program section reference
Multifamily Housing Nonprofit Transfer Technical Assistance Grants	10.494	$6.9	A
Off-Farm Labor Housing Technical Assistance Grants	10.495	1	B

Program Section A

Multifamily Housing Nonprofit Transfer Technical Assistance Grants

Table of Contents

A. Program Description
B. Federal Award Information
C. Eligibility Information
D. Application and Submission Information
E. Application Review Information

A. Program Description

The technical assistance (TA) grants offered under this funding opportunity are for the purpose of facilitating the transfer and preservation of existing Rural Rental Housing properties under section 515 of the Housing Act of 1949, as amended (42 U.S.C. 1485). Agency regulations for the section 515 program are published at 7 CFR part 3560. The Agency is authorized to utilize the appropriations from each fiscal year, for a total appropriation of $6.9 million, to provide grants to NPs and PHAs meeting the qualification standards of this Notice, who will then provide technical assistance, including financial and legal services, to MFH borrowers to facilitate the acquisition of section 515 MFH properties by nonprofit organizations and public housing authorities. Public Law 116–94 Sec. 764; Public Law 116–260, Sec. 753, Public Law 117–328, Sec. 745 and Public Law 117–103, Sec. 745. These grants must be provided in areas where the USDA Secretary determines there is a risk of loss of affordable housing in order to keep such properties in the MFH program. Risk of loss of affordable housing may be driven by market conditions or may be due to property-specific factors, including mortgages reaching maturity, owner ability to prepay existing Agency loans, poor physical condition of the property, or failing ownership.

B. Federal Award Information

Type of Award: Grant.

Fiscal Year (FY) Funds: 2020, 2021, 2022 and 2023.

Award Amounts: $6.9 million for MFH Nonprofit Transfer TA Grants.

C. Eligibility Information

(1) Eligible Respondents

Eligibility for MFH Nonprofit Transfer Technical Assistance Grants is limited to private and public nonprofit organizations and public housing authorities meeting the qualification requirements of this Notice. Potentially qualifying NPs and PHAs include tribally designated housing entities (TDHE) and Tribal housing NPs.

Eligible entities responding to this notice must have the knowledge, ability, technical expertise, practical experience, and capacity necessary to develop and package section 515 property transfer transactions. They must also demonstrate the ability to provide technical assistance to NPs and/or PHAs to facilitate their acquisition of section 515 properties. In addition, all eligible entities must demonstrate the ability to exercise leadership, organize work, and prioritize assignments to meet work demands in a cost-efficient

and timely manner within the 24-month grant term.

(2) Eligible Grant Activities

Grantees awarded under this notice are expected to provide technical assistance services to NPs and/or PHAs who are acquiring section 515 projects in order to increase TA recipients' capacity (knowledge, skills, and abilities) in the following areas: Locating potential section 515 properties for transfer; completing the transfer analysis, negotiation, application, underwriting, and closing processes; and identifying and securing funding from the Agency and/or other sources for the purpose of acquisition, repair and/or rehabilitation.

(3) Eligible Costs

Costs will be limited to those allowed under 2 CFR 200. Grantees may, with Agency concurrence and approval, utilize MFH NP TA grant funds for the following purposes: Soft costs such as financial analysis, transaction structuring analysis and completion of other transaction details such as Capital Needs Assessments, appraisals, and market surveys or other consultation, advisory and non-construction services required as part of the application process. Grantees may request Agency approval on a case-by-case basis for costs not included in the list.

(4) Ineligible Purposes/Costs

In addition to costs identified as unallowable by 2 CFR parts 200 and 400, grant funds cannot be used for the following:

(a) Grant funds cannot be used by the grantee for activities that are not directly related to preservation transactions (such as conferences, sponsorships, provider personnel education/training, etc.).

(b) Grant funds cannot be used by the grantee for activities or transactions in which they have any direct or indirect ownership interest (regardless of whether it is an interest as a current or prospective owner).

(c) Grant funds cannot be used to reimburse grantees for technical assistance services provided to another nonprofit or public body applicant in the development and packaging of its loan/grant docket and project when those applicant entities have requested reimbursement for technical assistance expenses as part of their total project development cost (See 7 CFR 3560.553(c) and 7 CFR part 3560.53(o)(3)). Duplication of service costs is not allowed.

(d) Grant funds cannot be used when an identity of interest exists between the technical assistance provider (or any third-party entity acting on their behalf) and the loan/grant applicant. Identity of interest is defined in 7 CFR 3560.11.

(e) Grant funds cannot be used for building materials, labor costs, or expenditures otherwise typically included as any hard costs for actual construction or repairs, prepayment, interest, or principal payments.

D. Application and Submission Information

(1) Electronic Application Submissions

All materials must be submitted via CloudVault. The process for submitting electronic application packages to the Agency via CloudVault is outlined above in the General Section of this notice.

(2) Content and Form of Application Submissions

In addition to the forms, certifications and assurances required of all respondents as outlined in the General Section of this notice, complete application packages for the MFH NP TA Grant must also contain a written grant proposal that includes the following required information:

(a) Summary page, which must include the following:

a. Responding entity's name, address, telephone number, and complete contact information for the entity's main point of contact;

b. Responding entity's Taxpayer Identification Number;

c. Grant Amount requested;

d. The State(s), area(s), and/or geographic region for which the application is being submitted; and

e. Responding entity's Unique Entity Identifier (UEI) number required for registration in the System for Award Management (SAM) prior to submitting an application pursuant to 2 CFR 25.200(b).

(b) Organizational Expertise and Experience Capabilities Statement. Responding entities must provide a capabilities statement describing their knowledge, demonstrated ability, practical experience, and capacity to develop and package section 515 property transfer transactions. They must also describe their ability to provide technical assistance to NPs and/or PHAs to facilitate the acquisition, repair, and rehabilitation of section 515 MFH properties. In addition, respondents must demonstrate the ability to exercise leadership, organize work, and prioritize assignments to meet work demands in a cost-efficient and timely manner within the 24-month grant term. If the respondent intends to have other entities working on its behalf, those entities must be identified and their abilities to meet the stated eligibility requirements and experience in delivering approved technical assistance services must also be addressed.

(c) Narrative. The responding entity must include a written narrative describing its knowledge, demonstrated ability, and practical experience in completing transfers of section 515 properties and/or providing training and technical assistance to NPs and PHAs for the transfer and rehabilitation of section 515 properties. If the responding entity intends to have other entities working on its behalf, the narrative must identify those entities and address their ability to meet the stated eligibility requirements and experience in delivering approved technical assistance services.

Respondents must identify section 515 transfer transactions completed by the applicant and/or organizations to whom the responding entity and/or other entities working on its behalf has provided technical assistance on applications for the transfer of section 515 projects in the last five years. For the projects and applications noted above, the respondent must provide the section 515 property name and location (city and state), technical assistance recipient organizational name and location (city and state), source of technical assistance funding, and outcome of the transaction (*i.e.,* no ownership change, transaction in process, transfer completed).

(d) Key Personnel and Staffing Plan. Proposals must include the resumes of all staff personnel that will perform key personnel services of (1) delivery of technical assistance and (2) administration of the grant. (Capital Needs Assessments (CNAs), appraisals, and market surveys are not considered to be key personnel services). The staffing plan must describe each staff member's ability to perform the proposed activities and/or their experience in successfully managing service delivery of TA grants. The plan must include a staffing chart complete with name, job title, salary, hours, timelines, and descriptions of all proposed employee duties that will achieve the objectives of the grant program. If respondents intend to contract for any key personnel services from outside their organization (not to exceed the 20% limit), the qualifications of all entities acting on behalf of respondents must also be addressed.

(e) Statement of Work (SOW)/Work Plan. Responding entities must submit a

detailed SOW that includes the following requirements:

a. Introduction/overview with a description of the organization's proposed plan to provide technical assistance to NPs and PHAs in the acquisition of section 515 properties.

b. The organization's capabilities to execute the proposed plan within the prescribed 24-month grant term.

c. The organization's plan to identify potential sellers of section 515 properties.

d. The organization's plan to identify and provide services to NPs and PHAs interested in acquiring these properties.

e. Types of proposed technical assistance and legal and/or financial services that will enable NPs and/or PHAs to submit successful transfer applications to the Agency within the prescribed 24-month grant term. Clearly explain the services to be provided directly by the respondent's organization and all services that will be provided by third parties. The responding entity must specify the State(s), area(s), and/or geographic region in which they and any proposed third-party subrecipients/contractors/consultants will offer technical assistance services. Respondents must also explain why each targeted service area and/or property is at risk of loss of affordable housing.

f. The organization's experience in identifying and successfully assisting entities in the acquisition, repair, and rehabilitation of section 515 MFH properties.

g. A detailed budget justification that aligns with the key project tasks/activities and a grant funds usage projection that corresponds with a 24-month timeline for service delivery. The grant funds usage projection should illustrate direct and indirect administrative costs in dollars, and as a percentage of the technical assistance services provided (not to exceed 20%).

h. Additional strengths, qualifications, or capabilities not included above that enhance the respondent's capacity to deliver services under this grant.

i. Current working agreements or contracts between the respondent and any entity performing services on its behalf must be submitted as part of the application package and any associated costs must be included in the responding entity's budget.

E. Application Review Information

All application packages will be reviewed to determine eligibility and completeness. All eligible, complete applications will be evaluated and competitively scored using the Application Scoring Criteria outlined below. Points will be awarded only for factors that are well-documented in the application package and, in the opinion of the Agency, meet the objectives outlined in each of the evaluation criteria. References to external websites, publications and/or other information not submitted as part of the application package will not be reviewed. Therefore, full documentation and support of all criteria is encouraged.

The review process designed for this notice will evaluate the degree to which the application sets forth measurable, realistic objectives that are consistent with this notice and can be completed within a 24-month grant period consistent with the application and processing guidance established by Agency transfer regulations.

Application Scoring Criteria (Points Can Be Earned in All Sections)

1. Respondent Experience (RHS Section 515)

a. Respondent has successful, verifiable experience completing section 515 transfers during the past five years. Experience must be demonstrated by submitting a list of past 515 project transfers as described in this Notice. To receive points, the respondent must have acted as the developer or technical assistance provider for the project and the transfers must be completed or there must be a submitted transfer application currently pending approval and/or closing with the Agency:

- *1–2 section 515 project transfers:* 10 points
- *3–5 section 515 project transfers:* 20 points
- *6–8 section 515 project transfers:* 30 points
- *9 or more section 515 project transfers:* 40 points

b. Respondent has successful, verifiable experience providing technical assistance that has increased the capacity of NPs and/or PHAs to complete section 515 transfers. Experience must be demonstrated by submitting a list of past instances providing technical assistance as described in this Notice. Points will be awarded according to the number of NP and/or PHA clients to whom the respondent has provided section 515 technical assistance services during the past five years:

- *1–4 section 515 technical assistance clients:* 10 points
- *5–8 section 515 technical assistance clients:* 20 points
- *9 or more section 515 technical assistance clients:* 30 points

2. Respondent Experience (Other Affordable Multifamily Housing Programs)

a. Respondent has successful, verifiable experience completing other affordable MFH project transfers during the past five years. Experience must be demonstrated by submitting a list of other affordable housing (non 515) past project transfers as described in this Notice. To receive points, the respondent must have acted as the developer or technical assistance provider for the project and projects must have been completed or have at a minimum obtained funding approval:

- *1–2 affordable housing project transfers:* 5 points
- *3–5 affordable housing project transfers:* 10 points
- *6–8 affordable housing project transfers:* 15 points
- *9 or more affordable housing project transfers:* 20 points

b. Respondent has successful, verifiable experience providing technical assistance that has increased the capacity of NPs and/or PHAs to complete affordable MFH project transfers. Experience must be demonstrated by submitting a list of past instances of providing technical assistance as described in this Notice. Points will be awarded according to the number of NP and/or PHA clients to whom the respondent has provided affordable MFH project technical assistance during the past five years:

- *1–4 affordable housing project clients:* 5 points
- *5–8 affordable housing project clients:* 10 points
- *9 or more affordable housing project clients:* 15 points

3. Proposed Outcomes

a. Respondent uses technical assistance resources to maximize the number of section 515 projects assisted with grant funding. Scoring is based on the Statement of Work/Work Plan. Points will be awarded according to the number of projects to be assisted under the grant:

- *1–5 projects:* 5 points
- *6–10 projects:* 10 points
- *11 or more projects:* 15 points

b. Respondent uses technical assistance resources to increase the capacity of NPs and PHAs to complete transfers of section 515 properties. Scoring is based on the Statement of Work/Work Plan. Points will be awarded according to the number of NPs or PHAs to be served under the grant:

- *1–3 NPs/PHAs:* 5 points

- *4–6 NPs/PHAs:* 10 points
- *7 or more NPs/PHAs:* 15 points

4. Grant Administration

a. Respondent uses grant resources to maximize the funding available for direct program delivery to TA recipients. Points will be awarded according to the administrative costs as a percentage of grant funds used (not to exceed 20%):

- *Administrative costs 10% to 20%:* 5 points
- *Administrative costs less than 10%:* 10 points

b. Respondent has successful, verifiable experience managing service delivery or technical assistance through the grant lifecycle during the past five years. Experience must be demonstrated by submitting a list of past instances of managing service delivery or providing technical assistance as described in this Notice. Experience considered for scoring purposes includes submitting timely requests for funding, meeting reporting requirements, and closing out awards. Points will be awarded according to the degree of experience:

- *Previous experience as described with 1–4 grants:* 5 points
- *Previous experience as described with 5 or more grants:* 10 points

5. *Multifamily Housing Program Delivery Goals.* All applications meeting the minimum scoring requirement of 50 points may be eligible for up to 15 additional points for proposals that offer TA services to support the MFH program delivery goals outlined in a. and b. below.

a. *Geographic coverage (up to 10 points):* The respondent proposes to serve a geographic area that is underserved by other technical assistance providers or proposes to serve areas with a significant number of properties in need of preservation, as identified by the respondent and verified by the Agency.

b. Innovative TA service delivery models (up to 5 points). The agency seeks to test a range of TA delivery models to assess the methods of TA delivery that are most effective to facilitate preservation; therefore, points may be awarded for respondents proposing a TA service delivery model that is different from other proposed models.

6. *Administrator Discretionary Points:* Respondents that meet the minimum scoring requirement may be considered for up to 15 discretionary scoring points (5 points for each category) as determined by the Administrator, which advance any or all of the Agency's three key funding priorities, provided that all other requirements set forth in this notice are otherwise met. The three key priorities are:

(i) *Market Opportunities (up to 5 points):* Priority points may be awarded if the project is located in or serving one of the top 10% of counties or county equivalents based upon county risk score in the United States. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.*

(ii) *Equity (up to 5 points):* Priority points may be awarded if the project is located in or serving a community with score 0.75 or above on the CDC Social Vulnerability Index. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.*

(iii) *Climate Impacts (up to 5 points):* Priority points may be awarded if the project is located in or serving coal, oil and gas, and power plant communities whose economic well-being ranks in the most distressed tier of the Distressed Communities Index. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.*

The minimum score requirement for grants awarded under this funding opportunity is 50 points. Final scores are determined by the Agency. The Agency reserves the right to withhold the awarding of funds for applications that fail to meet the minimum required final score. Meeting the minimum scoring requirement and/or receiving priority funding points or discretionary points from the Administrator does not guarantee a funding award.

The Agency will notify all responding entities whether their application has been accepted or rejected and provide appeal rights under 7 CFR part 11, as appropriate.

Program Section B

Off-Farm Labor Housing Technical Assistance Grant Program

Table of Contents

A. Program Description
B. Federal Award Information
C. Eligibility Information
D. Application and Submission Information
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A. Program Description

The technical assistance grants authorized under this funding opportunity are for the purpose of encouraging off-farm labor housing development under section 516(i) of the Housing Act of 1949, as amended; (42 U.S.C. 1486(i)). RHS regulations for section 514 and section 516 Off-FLH programs and provisions for FLH technical assistance grants are published at 7 CFR part 3560, subpart L. Off-FLH grants are authorized under section 516(i) of the Housing Act of 1949, as amended, 42 U.S.C. 1486(i), and implemented by 7 CFR part 3560.

The primary objective of this funding opportunity is to improve the overall quality of section 514 Off-FLH loan and section 516 Off-FLH grant application packages submitted to the Agency for funding consideration in areas determined to have unmet need and unsatisfied market demand for new off-farm labor housing development.

Eligible entities responding to this notice are expected to have knowledge, experience, and expertise in farm labor housing development, federal grant administration, and technical assistance program development, implementation, and delivery. In addition, eligible entities must possess the ability to exercise leadership, organize work, and prioritize assignments to meet work demands in a timely and cost-efficient manner within a 24-month grant performance period.

B. Federal Award Information

Type of Award: Grant.
Fiscal Year (FY) Funds: 2023.
Award Amounts: $1 million.

C. Eligibility Information

(1) Respondent Eligibility

Eligibility for Off-FLH Technical Assistance Grants is limited to qualified nonprofit organizations. Nonprofit organizations must meet the definition of nonprofit organization in 7 CFR 3560.11. Potentially qualifying nonprofit organizations include tribal housing nonprofits.

(2) Eligible Grant Activities

The primary work permitted under these Off-FLH TA grant awards will focus on eligible nonprofit organizations delivering direct technical assistance advisory services to qualified Off-FLH loan/grant applicant groups and organizations who lack the knowledge, experience and/or capacity to develop, package, and submit their own loan and grant dockets to the Agency for funding consideration.

Qualified applicants for section 514 loans and section 516 grants may include broad-based nonprofit organizations, nonprofit organizations of farmworkers, federally recognized Indian tribes, community organizations, agencies or political subdivisions of State, Tribal or local Governments (such

as housing authorities), and other eligible FLH organizations.

Off-Farm labor housing may be constructed in either urban or rural areas if need and demand for such housing is supported. However, respondents should concentrate their proposed grant activities in areas identified as having unmet need and unsatisfied market demand for new Off-FLH construction projects, as identified by the respondent and verified by the Agency.

(3) Eligible Costs

Costs will be limited to those allowed under 2 CFR part 200. Grantees may, with Agency concurrence and approval, utilize Off-FLH TA grant funds for the following purposes: Conducting targeted outreach efforts to inform and recruit potential Off-FLH applicants; providing advisory services to eligible Off-FLH applicants for conducting site searches, estimating construction costs, resolving planning, and zoning issues, and negotiating and executing property acquisitions; assisting applicants during the application development, packaging, submission, underwriting and closing processes; and for other transaction details that are considered part of the application process, such as financial analyses, Capital Needs Assessments (CNAs), appraisals, market surveys/studies, and other consultation, advisory and non-construction services. Grantees may request Agency approval on a case-by-case basis for costs not included in the list.

Grantees may also on a case-by-case basis and, with advance approval by the Agency, provide technical assistance to entities approved for Off-FLH funding during the construction and rent-up/lease-up phases of development, and provide training to Agency-funded Off-FLH projects to support successful long-term management of Off-FLH properties.

(4) Ineligible Purposes/Costs

In addition to costs identified as unallowable by 2 CFR parts 200 and 400, grant funds cannot be used for the following: (a) Construction (in any form) including building materials, labor, and costs or expenditures otherwise typically included as hard costs for actual construction.

(b) To reimburse grantees for technical assistance services provided to another nonprofit or public body applicant in the development and packaging of its loan/grant docket and project when those applicant entities have requested reimbursement for technical assistance expenses as part of their total project development cost (See 7 CFR 3560.553(c) and 7 CFR part 3560.53(o)(3) (Duplication of service costs is not allowed).

(c) In counties with Agency-financed Off-FLH properties currently operating under a ''diminished need'' occupancy waiver (7 CFR 3560.576(e)), which are listed on RD's website at *https://www.rd.usda.gov/programs-services/multifamily-housing-programs/farm-labor-housing-technical-assistance-grants#to-apply*.

(d) When an identity of interest exists between the technical assistance provider (or any third-party entity acting on their behalf) and the loan/grant applicant. Identity of interest is defined in 7 CFR 3560.11.

D. Application and Submission Information

(1) Electronic Application Submissions

All materials must be submitted via CloudVault. The process for submitting electronic application packages to the Agency via CloudVault is outlined above in the General Section of this notice.

(2) Content and Format of Application Packages

In addition to the forms, certifications and assurances required of all respondents as outlined in the General Section of this notice, complete application packages for the Off-FLH TA Grant must also contain a written grant proposal that includes the following required information:

(a) Summary page, which must include the following:

1. Responding entity's name, address, telephone number, and complete contact information for the entity's main point of contact;

2. Responding entity's Taxpayer Identification Number;

3. Grant Amount requested;

4. The State(s), area(s), and/or geographic region for which the application is being submitted; and

5. Responding entity's Unique Entity Identifier (UEI) number required for registration in the System for Award Management (SAM) prior to submitting an application pursuant to 2 CFR 25.200(b).

(b) Organizational Expertise and Experience Capabilities Statement. The responding entity must provide a capabilities statement describing overall organizational knowledge, demonstrated ability, and practical experience in developing, packaging, and submitting section 514/516 transactions for Agency funding consideration; developing, implementing, and delivering farm labor housing technical assistance programs; and managing Federal technical assistance grants throughout their lifecycle. In addition, respondents must demonstrate the ability to exercise leadership, organize work, and prioritize assignments to meet work demands in a cost-efficient and timely manner within the 24-month grant term. If the respondent intends to have other entities working on its behalf, those entities must be identified and their abilities to meet the stated eligibility requirements and experience in delivering approved technical assistance services must also be addressed.

(c) Narrative. The responding entity must include a written narrative describing its knowledge, demonstrated ability, and practical experience in farm labor housing development, Federal grant administration, and technical assistance program development, implementation, and delivery. If the respondent intends to have other entities working on its behalf, those entities must be identified and their abilities to meet the stated eligibility requirements and experience in delivering approved technical assistance services must also be addressed.

To demonstrate overall organizational knowledge, experience, and expertise in farm labor housing development, respondents must identify by property name, type, and location, all FLH projects (both section 514/516 and non-RHS) their organization has successfully developed in the past five (5) years. Please specify developments that continue to operate successfully to meet farm labor housing demand in the communities where they were developed. Respondents may also include a list of any successful, verifiable experience in completing or obtaining funding for other affordable Multifamily Housing projects during the past five years.

To demonstrate overall organizational knowledge, experience, and expertise in developing, implementing, and delivering farm labor housing technical assistance programs, respondents must identify by name and location the organizations and communities to which they have provided farm labor housing technical assistance services, the types of TA services provided to these entities, the sources of the technical assistance funding (including any leveraged funding sources), the number of section 514/516 loan/grant packages developed and submitted for Agency funding consideration on behalf of these entities, and a description of how the respondent's technical assistance services contributed to the development of off-farm labor housing that continues to operate successfully to meet off-farm labor housing demand in

the community where it was developed. Include the outcomes/success ratios of all transactions/projects listed above that were initiated within the past five years (*e.g.,* project approved for funding, project currently in development, project completed, etc.).

To demonstrate overall organizational knowledge, experience, and expertise in managing Federal technical assistance grants throughout their lifecycle (including submitting timely requests for reimbursements, meeting reporting requirements, and closing out awards), respondents must identify the total number and type(s) of Federal technical assistance grants their organization has successfully administered within the past five years, including the awarding Federal agencies involved.

(d) Key Personnel and Staffing Plan. Proposals must include the resumes of all personnel who will perform key personnel services of (1) technical assistance delivery and (2) grant administration (CNAs, appraisals, and market surveys are not considered key personnel services). The staffing plan must describe each staff member's ability to perform the proposed activities and/or their experience in successfully managing service delivery of TA grants. The plan must include a staffing chart complete with name, job title, salary, hours, timelines, and descriptions of all proposed employee duties that will achieve the objectives of the grant program. If respondents intend to contract for any key personnel services from outside their organization (not to exceed the 20% limit), the qualifications of all entities acting on behalf of respondents must also be addressed.

(e) Statement of Work/Work Plan. Responding entities must submit a detailed SOW that includes the following requirements:

1. Introduction/overview with a description of the proposed plan to identify and provide advisory services to eligible groups and organizations applying for section 514/516 Off-FLH loans and grants in underserved market areas.

2. The organization's capabilities to execute the proposed plan within the prescribed 24-month grant period.

3. The organization's plan to identify and recruit qualified groups and organizations who lack the knowledge, experience and/or capacity to package and submit section 514/516 applications for Agency funding consideration. The SOW must provide a projected number of section 514 loan and section 516 grant application packages the respondent intends to submit for Agency funding consideration during the 24-month grant period. The SOW should discuss how the respondent's existing FLH knowledge and expertise, in combination with statistical data analysis, were utilized in identifying potential loan/grant applicants and how those findings provided foundational context to their planning efforts. Respondents should also include a discussion of their organizational ability to effectively serve the targeted applicants based on key personnel, established timeframes, and budget projections. Please include the data utilized to support the proposal, all of which must be current, relevant, and verifiable.

4. The organization's plan to identify areas with unmet need and unsatisfied market demand for new Off-FLH project development. In determining the underserved areas to target for FLH TA services, respondents must consider the total number of farmworkers in the area, the number and percentage of farmworkers who are without adequate housing in the area and projected future housing demand in the area. Consultation with major employers of farm laborers and with farmworker organizations in each market area under consideration is strongly encouraged prior to determining which areas to target for services. The SOW should discuss how the respondent's existing FLH knowledge and expertise, in combination with statistical data analysis, were utilized in identifying underserved market areas and how those findings provided foundational context to their planning efforts. Also include a discussion of the respondent's organizational ability to effectively serve the targeted market areas based on key personnel, established timeframes, and budget projections. Respondents should include the data utilized to support their proposals, all of which must be current, relevant, and verifiable.

5. Types of proposed technical assistance and legal and/or financial services that will enable qualified applicants in underserved areas to submit successful section 514/516 applications to the Agency within the prescribed 24-month grant period. Respondents must clearly explain the services to be provided directly by their organization and all services that will be provided by third parties. The responding entity must specify the State(s) and/or geographic regions in which they and any proposed third-party contractors, consultants or subrecipients will offer technical assistance services. Respondents must specify why each applicant and targeted service area needs the proposed technical assistance services.

6. A detailed budget justification that aligns with the key project tasks/activities and a grant funds usage projection that corresponds with a 24-month timeline for service delivery. The grant funds usage projection should illustrate direct and indirect administrative costs in dollars, and as a percentage of the technical assistance services provided (not to exceed 20%).

7. Additional strengths, qualifications, or capabilities not discussed above that may enhance the respondent's capacity to deliver services under this grant.

E. Application Review Information

All application packages will be reviewed to determine eligibility and completeness. All eligible, complete applications will be evaluated and competitively scored using the Application Scoring Criteria outlined below. Points will be awarded only for factors that are well-documented in the application package and, in the opinion of the Agency, meet the objectives outlined in each of the evaluation criteria. References to external websites, publications and/or other information not submitted as part of the application package will not be reviewed. Therefore, full documentation and support of all criteria is encouraged.

The review process designed for this notice will evaluate the degree to which the application sets forth measurable realistic objectives that are consistent with this notice and can be completed within a 24-month grant term consistent with the application and processing guidance established by Agency regulations.

Application Scoring Criteria (Points Can Be Earned in All Sections)

1. Respondent Experience (RHS Section 514/516)

a. Respondent has successful, verifiable experience completing section 514/516 transactions during the past five years. Experience must be demonstrated by submitting a list of past section 514/516 transactions as described in this Notice. To receive points, the respondent must have acted as the developer or technical assistance provider and transactions must have been completed within the past five years or there must be a submitted application currently pending approval and/or closing with the Agency:

- *1–2 completed or pending section 514/516 transactions:* 10 points
- *3–5 completed or pending section 514/516 transactions:* 20 points
- *6–8 completed or pending section 514/516 transactions:* 30 points

- *9 or more completed or pending section 514/516 transactions:* 40 points

b. Respondent has successful, verifiable experience providing technical assistance to qualified borrowers in completing section 514/516 transactions. Experience must be demonstrated by submitting a list of past instances providing technical assistance as described in this Notice. Points will be awarded according to the number of qualified borrowers to whom the respondent has provided successful section 514/516 technical assistance during the past five years:

- *1–4 section 514/516 borrowers provided with technical assistance:* 10 points
- *5–8 section 514/516 borrowers provided with technical assistance:* 20 points
- *9 or more section 514/516 borrowers provided with technical assistance:* 30 points

2. Respondent Experience (Other/Non-RHS Affordable Multifamily Housing Programs)

a. Respondent has successful, verifiable experience completing or obtaining funding for non-RHS FLH or other affordable MFH projects during the past five years. Experience must be demonstrated by submitting a list of past project transactions as described in this Notice. To receive points, the respondent must have acted as the developer or technical assistance provider and the projects must have been completed or have (at a minimum) obtained funding approval during the past five years:

- *1–3 non-RHS FLH or MFH transactions completed/obtained funding approval:* 5 points
- *4–6 non-RHS FLH or MFH transactions completed/obtained funding approval:* 10 points
- *7–9 non-RHS FLH or MFH transactions completed/obtained funding approval:* 15 points
- *10 or more non-RHS FLH or MFH housing transactions completed/obtained funding approval:* 20 points

b. Respondent has successful, verifiable experience providing technical assistance to non-RHS FLH or MFH borrowers. Experience must be demonstrated by submitting a list of past instances of providing technical assistance as described in this Notice. Points will be awarded according to the number of non-RHS FLH or MFH borrowers to whom the respondent has provided technical assistance in the past five years:

- *1–4 non-RHS FLH or MFH borrowers assisted:* 5 points
- *5–8 non-RHS FLH or MFH borrowers assisted:* 10 points
- *9 or more non-RHS FLH or MFH borrowers assisted:* 15 points

3. Proposed Outcomes

a. Respondent uses technical assistance resources to maximize the number of areas assisted (based on the proposed Statement of Work/Work Plan). Points will be awarded according to the proposed number of areas with unmet need/unsatisfied market demand targeted for services under the TA grant:

- *1–5 proposed market areas:* 5 points
- *6–10 proposed market areas:* 10 points
- *11 or more proposed market areas:* 15 points

b. Respondent uses technical assistance resources to identify and assist qualified section 514/516 applicant groups and organizations (based on the Statement of Work/Work Plan). Points will be awarded according to the proposed number of qualified 514/516 applicant groups/organizations to be served under the grant:

- *1–3 qualified section 514/516 applicants:* 5 points
- *4–6 qualified section 514/516 applicants:* 10 points
- *7 or more qualified section 514/516 applicants:* 15 points

c. Respondent uses technical assistance resources to increase the number of successful section 514/516 applications submitted for Agency funding consideration (based on the Statement of Work/Work Plan). Points will be awarded according to the proposed number of section 514/516 loan/grant application packages to be submitted for Agency funding consideration during the 24-month grant period of performance:

- *1–5 application packages:* 5 points
- *6–10 application packages:* 10 points
- *More than 10 packages:* 15 points

4. Grant Administration

a. Respondent uses grant resources to maximize the funding available for direct program delivery to TA recipients. Percentage of grant funds used for direct and indirect administrative costs (not to exceed 20% of total projected costs):

- *Total Administrative costs 10% to 20%:* 5 points
- *Total Administrative Costs Less than 10%:* 10 points

b. Respondent has successful, verifiable experience managing service delivery or technical assistance throughout the grant lifecycle during the past five years. Experience must be demonstrated by submitting a list of past instances of managing service delivery or providing technical assistance as described in this Notice. Experience considered for scoring purposes includes submitting timely requests for funding, meeting reporting requirements, and closing out awards. Points will be awarded according to the degree of experience:

- *1–4 grants successfully managed during the past five years:* 5 points
- *5 or more grants successfully managed during the past five years:* 10 points

5. *Off-FLH Program Delivery Goals.* All applications meeting the minimum scoring requirement of 50 points may be eligible for up to 15 additional points for proposals that offer TA services to support the Off-FLH program delivery goals outlined in a. and b. below.

a. Geographic coverage (up to 10 points): Respondent proposes to serve geographic areas that are underserved by other technical assistance providers, as identified by the respondent and verified by the Agency.

b. Innovative TA service delivery models (up to 5 points): The agency seeks to test a range of TA delivery models to assess the methods of TA delivery that are most effective to facilitate successful Off-FLH development. Describe any supporting innovative delivery approaches associated with implementation of the outlined key personnel tasks, including contingencies for delivering TA services remotely/virtually in order to avoid service delays and disruptions.

6. *Administrator Discretionary Points:* Respondents meeting the minimum scoring requirements may be considered for up to 15 discretionary scoring points (5 points for each category) as determined by the Administrator, which advance any or all of the Agency's three key funding priorities, provided that all other requirements set forth in this notice are otherwise met. The three key priorities are:

(i) Market Opportunities (up to 5 points): Priority points may be awarded if the project is located in or serving one of the top 10% of counties or county equivalents based upon county risk score in the United States. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.*

(ii) Equity (up to 5 points): Priority points may be awarded if the project is located in or serving a community with score 0.75 or above on the CDC Social

Vulnerability Index. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.*

(iii) Climate Impacts (up to 5 points): Priority points may be awarded if the project is located in or serving coal, oil and gas, and power plant communities whose economic well-being ranks in the most distressed tier of the Distressed Communities Index. Information on whether your project qualifies for priority points can be found at the following website: *https://www.rd.usda.gov/priority-points.*

The minimum score requirement for grants awarded under this funding opportunity is 50 points. Final scores are determined by the Agency. The Agency reserves the right to withhold the awarding of funds for applications that fail to meet the minimum required final score. Meeting the minimum scoring requirements and/or receiving priority funding points or discretionary points from the Administrator does not guarantee a funding award.

The Agency will notify all responding entities whether their application has been accepted or rejected and provide appeal rights under 7 CFR part 11, as appropriate.

Joaquin Altoro,

Administrator, Rural Housing Service.

[FR Doc. 2023–09460 Filed 5–3–23; 8:45 am]

BILLING CODE 3410–XV–P

DEPARTMENT OF AGRICULTURE

Rural Housing Service

[Docket No. RHS–23–CF–0003]

Community Facilities Technical Assistance and Training Grant Program for Fiscal Year 2023; Correction

AGENCY: Rural Housing Service, USDA.

ACTION: Notice of Funds Availability (NOFA); correction.

SUMMARY: The Rural Housing Service (RHS), a Rural Development agency of the United States Department of Agriculture (USDA), is correcting a notice of funding availability (NOFA) that was published in the **Federal Register** on April 21, 2023, entitled, ''Community Facilities Technical Assistance and Training Grant Program for Fiscal Year 2023.'' The Notice announced the acceptance of applications under the Community Facilities Technical Assistance and Training (TAT) Grant Program for fiscal year (FY) 2023. The document contained an incorrect date. The purpose of this notice is to correct the application deadline dates published in the **Federal Register** on April 21, 2023.

DATES: May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Nathan Chitwood, Asset Risk Management Specialist at email address *nathan.chitwood@usda.gov,* United States Department of Agriculture, Rural Development, Business Loop 70 West, Suite 235, Columbia, MO 65203; or call; Telephone: 573–876–0965. For further information on submitting program applications under this notice, please contact the USDA RDSO in the state where the applicant's headquarters is located. A list of RDSO contacts is provided at the following link: *https://www.rd.usda.gov/about-rd/state-offices.*

SUPPLEMENTARY INFORMATION:

Correction

In the **Federal Register** of April 21, 2023, in FR Doc. 2023–08447, on page 24544, in the first column, correct the **DATES** caption to read as follows:

DATES: *Paper submissions:* Paper submissions must be received by the Agency no later than 4:00 p.m. local time on June 20, 2023, to be eligible for funding under this grant opportunity. Late or incomplete applications will not be eligible for funding.

Electronic submissions: Electronic submissions must be received no later than June 15, 2023, to be eligible for funding under this grant opportunity. Late or incomplete applications will not be eligible for funding. Electronic applications must be submitted via *https://www.Grants.gov* by 11:59 p.m. Eastern Time on June 15, 2023.

Joaquin Altoro,

Administrator, Rural Housing Service.

[FR Doc. 2023–09459 Filed 5–3–23; 8:45 am]

BILLING CODE 3410–XV–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–520–807]

Circular Welded Carbon-Quality Steel Pipe From the United Arab Emirates: Final Results of Antidumping Duty Administrative Review; 2020–2021

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) determines that the producers/exporters subject to this administrative review made sales of subject merchandise at prices less than normal value during the period of review (POR), December 1, 2020, through November 30, 2021.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Benjamin A. Luberda or Alice Maldonado, AD/CVD Operations, Office II, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–2185 or (202) 482–4682, respectively.

SUPPLEMENTARY INFORMATION:

Background

This review covers five producers/exporters of the subject merchandise. Commerce selected two mandatory respondents for individual examination: Ajmal Steel Tubes & Pipes Ind. L.L.C./Ajmal Steel Tubes & Pipes Ind. L.L.C.-Branch-1 (collectively, Ajmal) [1] and Universal Tube and Plastic Industries, Ltd./THL Tube and Pipe Industries LLC/KHK Scaffolding and Formwork LLC (collectively, Universal).[2] The producers/exporters not selected for individual examination are Conares Metal Supply Limited, TSI Metal

[1] We collapsed Ajmal Steel Tubes & Pipes Ind. L.L.C. and Noble Steel Industries L.L.C. (Noble Steel) together in the final results of the 2016–2017 administrative review. *See Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Final Results of Antidumping Duty Administrative Review; 2016–2017,* 84 FR 44845 (August 27, 2019) (*CWP from the UAE 2016–2017 Final Results*). Because there is no information on the record of this administrative review that would lead us to revisit this determination, we continue to treat these companies as part of a single entity for the purposes of this administrative review. In the final results of the 2019–2020 administrative review, we found that Ajmal Steel Tubes & Pipes Ind., L.L.C.-Branch-1 is the successor-in-interest to Noble Steel. *See Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Final Results of Antidumping Duty Administrative Review; 2019–2020,* 87 FR 41111 (July 11, 2022) (*CWP from the UAE 2019–2020 Final Results*).

[2] Commerce previously determined that Universal is a single entity consisting of the following three producers/exporters of subject merchandise: Universal Tube and Plastic Industries, Ltd.; KHK Scaffolding and Formwork LLC; and Universal Tube and Pipe Industries LLC (UTP). *See Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Affirmative Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination,* 81 FR 36882 (June 8, 2016), and accompanying Preliminary Decision Memorandum (PDM), unchanged in *Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Final Determination of Sales at Less Than Fair Value,* 81 FR 75030 (October 28, 2016), and accompanying Issues and Decision Memorandum. Because there is no information on the record of this administrative review that would lead us to revisit this determination, we are continuing to treat these companies as part of a single entity for the purposes of this administrative review. Additionally, we previously determined that THL Tube and Pipe Industries LLC is the successor-in-interest to UTP. *See CWP from the UAE 2016–2017 Final Results.*

Industries L.L.C.,[3] and K.D. Industries Inc.

On December 28, 2022, Commerce published the *Preliminary Results.*[4] A summary of the events that occurred since Commerce published the *Preliminary Results,* as well as a full discussion of the issues raised by interested parties for these final results, may be found in the Issues and Decision Memorandum.[5] The Issues and Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov.* In addition, a complete version of the Issues and Decision Memorandum can be accessed directly at *https://access.trade.gov/public/FRNoticesListLayout.aspx.*

Commerce conducted this administrative review in accordance with section 751 of the Tariff Act of 1930, as amended (the Act).

Scope of the Order[6]

The merchandise subject to the *Order* is welded carbon-quality steel pipes and tube, of circular cross-section, with an outside diameter not more than nominal 16 inches (406.4 mm), regardless of wall thickness, surface finish, end finish, or industry specification, and generally known as standard pipe, fence pipe and tube, sprinkler pipe, or structural pipe (although subject product may also be referred to as mechanical tubing). The products subject to this *Order* are currently classifiable in Harmonized Tariff Schedule of the United States (HTSUS) statistical reporting numbers 7306.19.1010, 7306.19.1050, 7306.19.5110, 7306.19.5150, 7306.30.1000, 7306.30.5015, 7306.30.5020, 7306.30.5025, 7306.30.5032, 7306.30.5040, 7306.30.5055, 7306.30.5085, 7306.30.5090, 7306.50.1000, 7306.50.5030, 7306.50.5050, and 7306.50.5070. Although the HTSUS numbers are provided for convenience and for customs purposes, the written product description remains dispositive.[7]

Analysis of Comments Received

All issues raised by interested parties to this administrative review are addressed in the Issues and Decision Memorandum. For a list of issues raised by parties, *see* the appendix to this notice.

Changes Since the Preliminary Results

Based on a review of the record and comments received from interested parties regarding the *Preliminary Results,* we made certain changes to the preliminary weighted-average dumping margin calculations for Ajmal, Universal, and the non-examined companies.[8]

Rate for Non-Examined Companies

The Act and Commerce's regulations do not address the establishment of a weighted-average dumping margin to be applied to companies not selected for individual examination when Commerce limits its examination in an administrative review pursuant to section 777A(c)(2) of the Act. Generally, Commerce looks to section 735(c)(5) of the Act, which provides instructions for calculating the all-others rate in a less-than-fair-value (LTFV) investigation, for guidance when calculating the weighted-average dumping margin for companies which were not selected for individual examination in an administrative review. Under section 735(c)(5)(A) of the Act, the all-others rate is normally an amount equal to the weighted average of the estimated weighted-average dumping margins established for exporters and producers individually investigated, excluding rates that are zero, *de minimis* (*i.e.,* less than 0.5 percent), or determined entirely on the basis of facts available.

For the final results, Commerce calculated weighted-average dumping margins for Ajmal and Universal that are not zero, *de minimis,* or based entirely on facts otherwise available. Accordingly, Commerce has continued to calculate the rate for companies not selected for individual examination using a weighted average of the weighted-average dumping margins calculated for Ajmal and Universal, weighted by each respondent's publicly-ranged total U.S. sales value.[9]

Final Results of Review

We calculated the following weighted-average dumping margins for the companies listed below for the period December 1, 2020, through November 30, 2021:

Exporter and/or producer	Weighted-average dumping margin (percent)
Ajmal Steel Tubes & Pipes Ind. L.L.C./Ajmal Steel Tubes & Pipes Ind. L.L.C.-Branch-1	5.06
Universal Tube and Plastic Industries, Ltd./THL Tube and Pipe Industries LLC/KHK Scaffolding and Formwork LLC	2.63
Conares Metal Supply Limited	3.63
TSI Metal Industries L.L.C.	3.63
K.D. Industries Inc.	3.63

Disclosure

We intend to disclose the calculations performed within five days of the date of publication of this notice to parties in this proceeding, in accordance with 19 CFR 351.224(b).

Assessment Rates

Pursuant to section 751(a)(2)(C) of the Act, and 19 CFR 351.212(b)(1), Commerce has determined, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries of subject

[3] In the final results of the 2019–2020 administrative review, we found that TSI Metal Industries L.L.C. is the successor-in-interest to Tiger Steel Industries L.L.C. *See CWP from the UAE 2019–2020 Final Results.*

[4] *See Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Preliminary Results of Antidumping Duty Administrative Review; 2020–2021,* 87 FR 79862 (December 28, 2022) (*Preliminary Results*), and accompanying PDM, corrected by the **Federal Register** in *Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Preliminary Results of Antidumping Duty Administrative Review; 2020–2021,* 88 FR 7404 (February 3, 2023).

[5] *See* Memorandum, ''Issues and Decision Memorandum for the Final Results of the 2020–2021 Administrative Review of the Antidumping Duty Order on Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates,'' dated concurrently with, and hereby adopted by, this notice (Issues and Decision Memorandum).

[6] *See Circular Welded Carbon-Quality Steel Pipe from the Sultanate of Oman, Pakistan, and the United Arab Emirates: Amended Final Affirmative Antidumping Duty Determination and Antidumping Duty Orders,* 81 FR 91906 (December 19, 2016) (*Order*).

[7] For a complete description of the scope of the *Order, see* the Issues and Decision Memorandum.

[8] *See* the Issues and Decision Memorandum.

[9] When Commerce's individual examination of respondents is limited to two respondents, Commerce normally calculates: (A) a weighted average of the weighted-average dumping margins calculated for the individually-examined respondents; (B) a simple average of the weighted-average dumping margins calculated for the individually-examined respondents; and (C) a weighted average of the weighted-average dumping margins calculated for the individually-examined respondents using each company's publicly-ranged U.S. sales quantities of subject merchandise. Commerce then compares then compares (B) and (C) to (A) and selects either the (B) or (C) rate based on the rate closest to (A) as the most appropriate rate for companies not selected for individual examination, as using the (A) rate would result in the disclosure of business proprietary information. *See, e.g., Ball Bearings and Parts Thereof from France, Germany, Italy, Japan, and the United Kingdom: Final Results of Antidumping Duty Administrative Reviews, Final Results of Changed-Circumstances Review, and Revocation of an Order in Part,* 75 FR 53661, 53663 (September 1, 2010). In this review, Commerce based the rate for companies not selected for individual examination on the publicly-ranged sales data of the mandatory respondents. For an analysis of the data, *see* Memorandum, ''Calculation of the Non-Selected Companies Rate for the Final Results,'' dated concurrently with this notice.

merchandise in accordance with the final results of this review.

Pursuant to 19 CFR 351.212(b)(1), because Ajmal and Universal reported the entered value of their U.S. sales, we calculated importer-specific *ad valorem* duty assessment rates for antidumping duties based on the ratio of the total amount of dumping calculated for the examined sales to each importer to the total entered value of those sales. Where an importer-specific assessment rate is *de minimis* (*i.e.,* less than 0.5 percent), the entries by that importer will be liquidated without regard to antidumping duties.

Commerce's ''automatic assessment'' will apply to entries of subject merchandise during the POR produced or exported by Ajmal or Universal for which the company did not know that the merchandise they sold to the intermediary (*e.g.,* a reseller, trading company, or exporter) was destined for the United States. In such instances, we will instruct CBP to liquidate unreviewed entries at the all-others rate if there is no rate for the intermediate company(ies) involved in the transaction.[10]

For the companies that were not selected for individual review, the assessment rate for antidumping duties will be equal to the weighted-average dumping margin determined in these final results.

We intend to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

Cash Deposit Requirements

The following cash deposit requirements will be effective for all shipments of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the publication date of the final results of this administrative review, as provided by section 751(a)(2)(C) of the Act: (1) the cash deposit rate for each company listed above will be that established in the final results of this review, except if the rate is less than 0.50 percent and, therefore, *de minimis* within the meaning of 19 CFR 351.106(c)(1), in which case the cash deposit rate will be zero; (2) for previously investigated companies not subject to this review, the cash deposit will continue to be the company-specific rate published for the most recently completed segment of this proceeding; (3) if the exporter is not a firm covered in this review, or a previous segment, but the producer is, then the cash deposit rate will be the rate established for the most recent segment for the producer of the merchandise; and (4) the cash deposit rate for all other producers or exporters will continue to be 5.95 percent, the all-others rate established in the LTFV investigation.[11]

These cash deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

Administrative Protective Order

This notice serves as the only reminder to parties subject to an administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3), which continues to govern business proprietary information in this segment of the proceeding. Timely written notification of return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

Notification to Interested Parties

We are issuing and publishing this notice in accordance with sections 751(a)(1) and 777(i) of the Act.

Dated: April 27, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Issues and Decision Memorandum

I. Summary
II. Background
III. Scope of the Order
IV. Changes from the *Preliminary Results*
V. Discussion of the Issues
  Comment 1: Differential Pricing Analysis
  Comment 2: Treatment of Section 232 Duties
  Comment 3: Selection of the Correct Universes of Sales for Ajmal for the Period of Review (POR)
  Comment 4: Calculation of Universal's Imputed Credit Expense for U.S. Sales
  Comment 5: Application of Partial Adverse Facts Available (AFA) for Universal's Reported Freight Revenue on U.S. Sales
VI. Recommendation

[FR Doc. 2023–09464 Filed 5–3–23; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–983]

Drawn Stainless Steel Sinks From the People's Republic of China: Preliminary Results and Partial Rescission of Antidumping Duty Administrative Review; 2021–2022

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) preliminarily determines that sales of drawn stainless steel sinks (sinks) from the People's Republic of China (China) were made below normal value (NV) during the period of review. Additionally, Commerce is rescinding this review with respect to multiple companies. Interested parties are invited to comment on these preliminary results of review.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Ajay Menon or Paul Gill, AD/CVD Operations, Office IX, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–0208 or (202) 482–5673, respectively.

SUPPLEMENTARY INFORMATION:

Background

On June 9, 2022, based on timely requests for review, in accordance with

[10] For a full discussion of this practice, *see Antidumping and Countervailing Duty Proceedings: Assessment of Antidumping Duties,* 68 FR 23954 (May 6, 2003).

[11] *See Circular Welded Carbon-Quality Steel Pipe from the Sultanate of Oman, Pakistan, and the United Arab Emirates: Amended Final Affirmative Antidumping Duty Determination and Antidumping Duty Orders,* 81 FR 91906, 91908 (December 19, 2016).

19 CFR 351.221(c)(1)(i), we initiated an administrative review of the antidumping duty order on sinks from China.[1] On December 5, 2022, we extended the preliminary results of this review to no later than April 28, 2023.[2] For a complete description of the events that followed the initiation of this review, *see* the Preliminary Decision Memorandum.[3]

Scope of the Order [4]

The products covered by the *Order* are sinks from China. Imports of subject merchandise are currently classified under the Harmonized Tariff Schedule of the United States (HTSUS) subheadings 7324.10.0000 and 7324.10.0010. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of the *Order* is dispositive.[5]

Partial Rescission of Administrative Review

Pursuant to 19 CFR 351.213(d)(1), Commerce will rescind an administrative review, in whole or in part, if a party who requested the review withdraws the request within 90 days of the date of publication of notice of initiation of the requested review. On September 7, 2022, the petitioner [6] timely withdrew its request for an administrative review of the following companies: [7] (1) B&R Industries Limited; (2) Feidong Import and Export Co., Ltd.; (3) Foshan Shunde MingHao Kitchen Utensils Co., Ltd.; (4) Foshan Zhaoshun Trade Co., Ltd.; (5) Franke Asia Sourcing Ltd.; (6) Grand Hill Work Company; (7) Guangdong G-Top Import & Export Co., Ltd.; (8) Guangdong New Shichu Import & Export Company Limited; (9) Hangzhou Heng's Industries Co., Ltd.; (10) Hubei Foshan Success Imp & Exp Co. Ltd.; (11) J&C Industries Enterprise Limited; (12) Jiangmen Hongmao Trading Co., Ltd.; (13) Jiangmen New Star Hi-Tech Enterprise Ltd.; (14) Jiangmen Pioneer Import & Export Co., Ltd.; (15) Jiangxi Zoje Kitchen & Bath Industry Co., Ltd.; (16) KaiPing Dawn Plumbing Products, Inc.; (17) Ningbo Afa Kitchen and Bath Co., Ltd./Yuyao Afa Kitchenware Co., Ltd.; (18) Ningbo Oulin Kitchen Utensils Co., Ltd.; (19) Primy Cooperation Limited; (20) Shunde Foodstuffs Import & Export Company Limited of Guangdong; (21) Shunde Native Produce Import and Export Co., Ltd. of Guangdong; (22) Xinhe Stainless Steel Products Co., Ltd.; (23) Zhongshan Newecan Enterprise Development Corporation; (24) Zhongshan Silk Imp. & Exp. Group Co., Ltd. of Guangdong; (25) Zhongshan Superte Kitchenware Co., Ltd.; and (26) Zhuhai Kohler Kitchen & Bathroom Products Co. Ltd. Because no other party requested a review of these companies, we are rescinding the administrative review for these companies in accordance with 19 CFR 351.213(d)(1).

Methodology

Commerce is conducting this review in accordance with section 751(a)(1)(B) of Tariff Act of 1930, as amended (the Act). Export price is calculated in accordance with section 772 of the Act. NV is calculated in accordance with section 773 of the Act. For a full description of the methodology underlying our conclusions, *see* the Preliminary Decision Memorandum. The Preliminary Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov.* In addition, a complete version of the Preliminary Decision Memorandum can be accessed directly at *https://access.trade.gov/public/FRNoticesListLayout.aspx.* A list of the topics discussed in the Preliminary Decision Memorandum is attached as an appendix to this notice.

Preliminary Results of the Review

Because Shenzhen Kehuaxing Industrial Ltd. (Shenzhen Kehuaxing) did not demonstrate that it is entitled to a separate rate, Commerce preliminarily finds this company to be part of the China-wide entity. Because no party requested a review of the China-wide entity, the entity is not under review. Thus, the rate previously established for the China-wide entity, *i.e.,* 76.45 percent,[8] remains the China-wide entity rate in this review.

We preliminarily determine that the following weighted-average dumping margins exist for the period April 1, 2021, through March 31, 2022, for the mandatory respondents:

Producer or exporter	Weighted-average dumping margin (percent)
Guangdong Dongyuan Kitchenware Industrial Co., Ltd	9.52
Guangdong Yingao Kitchen Utensils Co., Ltd	36.53

Assessment Rates

Upon issuing the final results, Commerce shall determine, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries covered by this review.[9]

For Guangdong Dongyuan Kitchenware Industrial Co., Ltd. (Dongyuan) and Guangdong Yingao Kitchen Utensils Co., Ltd. (Yingao), Commerce calculated importer- (or customer-) specific per-unit duty assessment rates based on the ratio of the total amount of dumping calculated for the importer's (or customer's) examined sales to the total sales quantity associated with those sales, in accordance with 19 CFR 351.212(b)(1). Where either a respondent's weighted-average dumping margin is zero or *de minimis* within the meaning of 19 CFR 351.106(c)(1), or an importer-specific rate is zero or *de minimis,* we will instruct CBP to liquidate the appropriate entries without regard to antidumping duties.[10]

For the final results, if we continue to treat Shenzhen Kehuaxing as part of the China-wide entity, we will instruct CBP to apply an *ad valorem* assessment rate of 76.45 percent to all entries of subject merchandise that were produced and/or exported by Shenzhen Kehuaxing.

In accordance with section 751(a)(2)(C) of the Act, the final results of this review shall be the basis for the assessment of antidumping duties on entries of merchandise covered by the review and for future deposits of

[1] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 87 FR 35165 (June 9, 2022).

[2] *See* Memorandum, ''Drawn Stainless Steel Sinks from the People's Republic of China: Extension of Deadline for Preliminary Results of Antidumping Duty Administrative Review; 2021–2022,'' dated December 5, 2022.

[3] *See* Memorandum, ''Decision Memorandum for the Preliminary Results of the Antidumping Duty Administrative Review of Drawn Stainless Steel Sinks from the People's Republic of China; 2021–2022,'' dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

[4] *See Drawn Stainless Steel Sinks from the People's Republic of China: Amended Final Determination of Sales at Less Than Fair Value and Antidumping Duty Order,* 78 FR 21592 (April 11, 2013) (*Order*).

[5] For a complete description of the scope of the order, *see* Preliminary Decision Memorandum.

[6] The petitioner is Elkay Manufacturing Company.

[7] *See* Petitioner's Letter, ''Partial Withdrawal of Request for Administrative Review'' dated September 7, 2022.

[8] The China-wide rate determined in the investigation was 76.53 percent. *See Order,* 78 FR at 21594. This rate was adjusted for export subsidies and estimated domestic subsidy pass through to determine the cash deposit rate (*i.e.,* 76.45 percent) collected for companies in the China-wide entity. *See* explanation in *Drawn Stainless Steel Sinks from the People's Republic of China: Investigation, Final Determination,* 78 FR 13019 (February 26, 2013) (*Final Determination*).

[9] *See* 19 CFR 351.106(c)(2).

[10] *Id.*

estimated antidumping duties, where applicable. Commerce intends to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

Finally, for the companies for which we are rescinding this administrative review, antidumping duties shall be assessed at rates equal to the cash deposit of estimated antidumping duties required at the time of entry, or withdrawal from warehouse, for consumption, in accordance with 19 CFR 351.212(c)(1)(i). Commerce intends to issue appropriate assessment instructions directly to CBP no earlier than 35 days after the date of publication of this notice in the **Federal Register**.

Cash Deposit Requirements

The following cash deposit requirements will be effective upon publication of the final results of this administrative review for all shipments of subject merchandise from China entered, or withdrawn from warehouse, for consumption on, or after, the publication date of the final results of review, as provided for by section 751(a)(2)(C) of the Act: (1) for Dongyuan and Yingao, the cash deposit rates will be equal to the weighted-average dumping margins established in the final results of this review (except, if the dumping margin is zero or *de minimis,* then the cash deposit rate will be zero); (2) for a previously investigated or reviewed exporter of subject merchandise not listed in the final results of review that has a separate rate, the cash deposit rate will continue to be the exporter's existing cash deposit rate; (3) for all Chinese exporters of subject merchandise that do not have a separate rate, the cash deposit rate will be the cash deposit rate established for the China-wide entity, *i.e.,* 76.45 percent; [11] and (4) for all exporters of subject merchandise that are not located in China and that are not eligible for a separate rate, the cash deposit rate will be the rate applicable to the China exporter(s) that supplied that non-Chinese exporter. These deposit requirements, when imposed, shall remain in effect until further notice.

Disclosure

Commerce intends to disclose the calculations performed in connection with these preliminary results to interested parties within five days after the date of publication of this notice in the **Federal Register**.[12]

Public Comment

Interested parties may submit case briefs to Commerce no later than seven days after the date of the last verification report issued in this administrative review.[13] Rebuttal briefs, limited to issues raised in the case briefs, may be filed no later than seven days after the time limit for filing case briefs.[14] Parties who submit case briefs or rebuttal briefs in this proceeding are encouraged to submit with each argument: (1) a statement of the issue; (2) a brief summary of the argument; and (3) a table of authorities.[15] Case and rebuttal briefs should be filed using ACCESS.[16] Note that Commerce has temporarily modified certain of its requirements for serving documents containing business proprietary information, until further notice.[17]

Pursuant to 19 CFR 351.310(c), interested parties who wish to request a hearing must submit a written request to the Assistant Secretary for Enforcement and Compliance, filed electronically via ACCESS within 30 days after the date of publication of this notice.[18] Hearing requests should contain: (1) the party's name, address, and telephone number; (2) the number of participants; and (3) a list of issues to be discussed. Oral presentations at the hearing will be limited to issues raised in the briefs. If a request for a hearing is made, parties will be notified of the time and date for the hearing.[19]

Verification

As provided in section 782(i)(3) of the Act, Commerce intends to verify the information relied upon for its final results.

Final Results

Commerce intends to issue the final results of this administrative review, including the results of its analysis raised in any written briefs, not later than 120 days after the publication of these preliminary results in the **Federal Register**, unless otherwise extended.[20]

Notification to Importers

This notice also serves as a preliminary reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping and/or countervailing duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping and/or countervailing duties occurred and the subsequent assessment of double antidumping duties, and/or an increase in the amount of antidumping duties by the amount of the countervailing duties.

Notification to Interested Parties

We are issuing and publishing these preliminary results in accordance with sections 751(a)(1) and 777(i)(1) of the Act, 19 CFR 351.213, and 19 CFR 351.221(b)(4).

Dated: April 27, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Preliminary Decision Memorandum

I. Summary
II. Background
III. Period of Review
IV. Scope of the *Order*
V. Discussion of the Methodology
VI. Currency Conversion
VII. Recommendation

[FR Doc. 2023–09429 Filed 5–3–23; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[C–533–896]

Common Alloy Aluminum Sheet From India: Preliminary Results of Countervailing Duty Administrative Review and Partial Rescission; 2020–2021

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) preliminarily determines that producers/exporters of

[11] *See Order,* 78 FR 21592, adjusted for export subsidies as outlined in *Final Determination,* 78 FR 13019.

[12] *See* 19 CFR 351.224(b).

[13] *See* 19 CFR 351.309(c).

[14] Commerce is exercising its discretion, under 19 CFR 351.309(d)(1), to alter the time limit for filing of rebuttal briefs.

[15] *See* 19 CFR 351.309(c)(2) and (d)(2).

[16] *See* 19 CFR 351.303.

[17] *See Temporary Rule Modifying AD/CVD Service Requirements Due to COVID–19; Extension of Effective Period,* 85 FR 41363 (July 10, 2020).

[18] *See* 19 CFR 351.310(c).

[19] *See* 19 CFR 351.310(d).

[20] *See* section 751(a)(3)(A) of the Act.

common alloy aluminum sheet (aluminum sheet) from India received countervailable subsidies during the period of review (POR) August 14, 2020, through December 31, 2021. Interested parties are invited to comment on these preliminary results.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Benito Ballesteros, AD/CVD Operations, Office IX, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–4725.

SUPPLEMENTARY INFORMATION:

Background

On April 27, 2021, Commerce published the countervailing duty order on aluminum sheet from India.[1] On June 9, 2022, Commerce published in the **Federal Register** a notice of initiation of an administrative review of the *Order.*[2] On December 5, 2022, Commerce extended the deadline for the preliminary results of this administrative review until April 28, 2023.[3]

For a complete description of the events that followed the initiation of this review, *see* the Preliminary Decision Memorandum.[4] A list of topics discussed in the Preliminary Decision Memorandum is included as the appendix to this notice. The Preliminary Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov*. In addition, a complete version of the Preliminary Decision Memorandum can be accessed directly at *https://access.trade.gov/public/FRNoticesListLayout.aspx.*

Rescission of Administrative Review, In Part

Pursuant to 19 CFR 351.213(d)(3), Commerce's practice is to rescind an administrative review of a countervailing duty order when there are no reviewable entries of subject merchandise during the POR for which liquidation is suspended.[5] Normally, upon completion of an administrative review, the suspended entries are liquidated at the countervailing duty assessment rate calculated for the review period.[6] Therefore, for an administrative review of a company to be conducted, there must be a reviewable, suspended entry that Commerce can instruct U.S. Customs and Border Protection (CBP) to liquidate at the calculated countervailing duty assessment rate calculated for the review period.[7]

According to the CBP import data, one company, Virgo Aluminum Limited (Virgo), did not have a reviewable entry of subject merchandise during the POR for which liquidation is suspended.[8] Therefore, we notified interested parties that we intended to rescind this administrative review with respect to Virgo and provided parties an opportunity to submit comments, including factual information to demonstrate whether there were reviewable entries during the POR for Virgo.[9] We received comments from Virgo on our intent to rescind this review.[10] However, in response to Commerce's supplemental questionnaire, Virgo was unable to provide evidence of an entry of subject merchandise during the POR.[11] Therefore, in the absence of reviewable, suspended entries of subject merchandise during the POR, in accordance with 19 CFR 351.213(d)(3), we are rescinding this administrative review with respect to Virgo. For further discussion, *see* the Preliminary Decision Memorandum.

Scope of the Order

The merchandise covered by this *Order* is aluminum sheet from India. For a complete description of the scope of the *Order, see* the Preliminary Decision Memorandum.

Methodology

Commerce is conducting this review in accordance with section 751(a)(l)(A) of the Tariff Act of 1930, as amended (the Act). For each of the subsidy programs found to be countervailable, Commerce preliminarily determines that there is a subsidy, *i.e.,* a financial contribution by an ''authority'' that gives rise to a benefit to the recipient, and that the subsidy is specific.[12] For a full description of the methodology underlying our conclusions, *see* the Preliminary Decision Memorandum.

Preliminary Results of Review

As a result of this review, we preliminarily determine that, for 2020 and 2021, the following estimated countervailable subsidy rates exist:

Company	Subsidy rate 2020 (percent ad valorem)	Subsidy rate 2021 (percent ad valorem)
Hindalco Industries Limited[13]	37.90	32.43

Assessment Rates

Consistent with section 751(a)(2)(C) of the Act and 19 CFR 351.212(b)(2), upon issuance of the final results, Commerce shall determine, and CBP shall assess, countervailing duties on all appropriate entries covered by this review. Commerce intends to issue assessment instructions to CBP no earlier than 35

[1] *See Common Alloy Aluminum Sheet from Bahrain, India, and the Republic of Turkey: Countervailing Duty Orders,* 86 FR 22144 (April 27, 2021) *(Order).*

[2] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews*, 87 FR 35165 (June 9, 2022).

[3] *See* Memorandum, ''Extension of Deadline for Preliminary Results of Countervailing Duty Administrative Review; 2020–2021,'' dated December 5, 2022.

[4] *See* Memorandum, ''Decision Memorandum for the Preliminary Results of the Countervailing Duty Administrative Review of Common Alloy Aluminum Sheet from India; 2020–2021,'' dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

[5] *See, e.g., Lightweight Thermal Paper from the People's Republic of China: Notice of Rescission of Countervailing Duty Administrative Review; 2015,* 82 FR 14349 (March 20, 2017); *see also Circular Welded Carbon Quality Steel Pipe from the People's Republic of China: Rescission of Countervailing Duty Administrative Review; 2017,* 84 FR 14650 (April 11, 2019).

[6] *See* 19 CFR 351.212(b)(2).

[7] *See* 19 CFR 351.213(d)(3).

[8] *See* Memorandum, ''Release of Customs and Border Protection Data Query,'' dated June 9, 2022.

[9] *See* Memorandum, ''Notice of Intent to Rescind Review, In Part,'' dated July 6, 2022.

[10] *See* Virgo's Letter, ''Virgo' Comments Commerce's Intent to Rescind the Administrative Review,'' dated July 25, 2022.

[11] *See* Virgo's Letter, ''Supplemental Response,'' dated September 26, 2022, at 1.

[12] *See* sections 771(5)(B) and (D) of the Act regarding financial contribution; section 771(5)(E) of the Act regarding benefit; and section 771(5A) of the Act regarding specificity.

[13] As discussed in the Preliminary Decision Memorandum, Commerce has found the following company to be cross-owned with Hindalco Industries Limited (Hindalco): Utkal Alumina International Limited.

days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

For Virgo, the company for which we are rescinding this administrative review, Commerce will instruct CBP to assess countervailing duties on all appropriate entries at a rate equal to the cash deposit of estimated countervailing duties required at the time of entry, or withdrawal from warehouse, for consumption, during the period August 14, 2020, through December 31, 2021, in accordance with 19 CFR 351.212(c)(l)(i). Commerce intends to issue appropriate assessment instructions directly to CBP no earlier than 35 days after the date of publication of this notice in the **Federal Register**.

Cash Deposit Requirements

Pursuant to section 751(a)(1) of the Act, Commerce also intends to instruct CBP to collect cash deposits of estimated countervailing duties in the amounts calculated for the year 2021 for Hindalco with regard to shipments of subject merchandise entered, or withdrawn from warehouse, for consumption on or after the date of publication of the final results of this review. For all non-reviewed firms, CBP will continue to collect cash deposits of estimated countervailing duties at the all-others rate or the most recent company-specific rate applicable to the company, as appropriate. These cash deposit requirements, when imposed, shall remain in effect until further notice.

Disclosure

Commerce intends to disclose to parties to this proceeding the calculations performed in reaching the preliminary results within five days of the date of publication of these preliminary results, in accordance with 19 CFR 351.224(b).

Public Comment

Case briefs or other written comments may be submitted to the Assistant Secretary for Enforcement and Compliance no later than 30 days after the date of publication of the preliminary results. Rebuttal briefs, limited to issues raised in case briefs, may be submitted no later than seven days after the deadline date for case briefs after the deadline date for case briefs.[14] Pursuant to 19 CFR 351.309(c)(2) and (d)(2), parties who submit case or rebuttal briefs in this review are encouraged to submit with each argument: (1) a statement of the issue; (2) a brief summary of the argument; and (3) a table of authorities. All briefs must be filed electronically using ACCESS. An electronically filed document must be received successfully in its entirety using ACCESS by 5:00 p.m. Eastern Time on the established deadline. Note that Commerce has temporarily modified certain of its requirements for service documents containing business proprietary information, until further notice.[15]

Pursuant to 19 CFR 351.310(c), interested parties who wish to request a hearing, limited to issues raised in the case and rebuttal briefs, must do so within 30 days after the publication of these preliminary results by submitting a written request to the Assistant Secretary for Enforcement and Compliance using ACCESS. Requests should contain the party's name, address, and telephone number, and a list of the issues to be discussed. Issues addressed at the hearing will be limited to those raised in the briefs. If a request for a hearing is made, Commerce will inform parties of the scheduled date for the hearing.[16]

Unless the deadline is extended, Commerce intends to issue the final results of this administrative review, including the results of our analysis of the issues raised by the parties in their comments, no later than 120 days after the date of publication of this notice, pursuant to section 751(a)(3)(A) of the Act and 19 CFR 351.213(h)(1).

Notification to Interested Parties

These preliminary results are issued and published pursuant to sections 751(a) and 777(i) of the Act and 19 CFR 351.221(b)(4) and 351.213(d)(4).

Dated: April 27, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Preliminary Decision Memorandum

I. Summary
II. Background
III. Scope of the *Order*
IV. Rescission of Administrative Review, In Part
V. Subsidies Valuation
VI. Benchmarks and Discount Rates
VII. Analysis of Programs
VIII. Recommendation

[FR Doc. 2023–09425 Filed 5–3–23; 8:45 am]

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[14] *See* 19 CFR 351.309; see also 19 CFR 351.303 (for general filing requirements).

[15] *See Temporary Rule Modifying AD/CVD Service Requirements Due to COVID–19; Extension of Effective Period,* 85 FR 41363 (July 10, 2020).

[16] *See* 19 CFR 351.310.

DEPARTMENT OF COMMERCE

International Trade Administration

Rice University, et al.; Application(s) for Duty-Free Entry of Scientific Instruments

Pursuant to section 6(c) of the Educational, Scientific and Cultural Materials Importation Act of 1966 (Pub. L. 89–651, as amended by Pub. L. 106–36; 80 Stat. 897; 15 CFR part 301), we invite comments on the question of whether instruments of equivalent scientific value, for the purposes for which the instruments shown below are intended to be used, are being manufactured in the United States.

Comments must comply with 15 CFR 301.5(a)(3) and (4) of the regulations and be postmarked on or before May 24, 2023. Address written comments to Statutory Import Programs Staff, Room 3720, U.S. Department of Commerce, Washington, DC 20230. Please also email a copy of those comments to *Dianne.Hanshaw@trade.gov*.

Docket Number: 23–005. Applicant: Rice University, 6100 Main Street, Houston, TX 77005. Instrument: Full-ring Shaped Ultrasonic Transducer Array. Manufacturer: HEBEI ULSO TECH CO., LTD., China. Intended Use: The instrument is intended to be used in the research of photoacoustic tomography, which will be used for photoacoustic signal full-view detection. The instrument will be integrated into a customized photoacoustic imaging system for visualization of wholebody dynamics inside small animals for biomedical applications. For example, the developed imaging system can be used to study tumor metastasis, monitor chemotherapy, and test new drugs. The overall goal of this research is to develop a pre-clinical molecular imaging platform for cancer study. The instrument will be used for multiple imaging related undergraduate/graduate level courses in electrical engineering at Rice University, including computation imaging, computer vision, optical imaging, medical imaging, etc. The instrument will be integrated into a customized medical imaging system consisting of optics, ultrasonic sensing, data acquisition and image reconstruction. Each component will be discussed in related courses. Students will also tour the research lab and

operate the imaging system to gain hands-on experience. Justification for Duty-Free Entry: According to the applicant, there are no instruments of the same general category manufactured in the United States. Application accepted by Commissionerof Customs: February 1, 2023.

Docket Number: 23–006. Applicant: University of Wisconsin Stout, 712 Broadway Street, S, Menomonie, WI 54751. Instrument: 156 Direction Photographic Lighting Cage. Manufacturer: ESPER Designs, Ltd., United Kingdom. Intended Use: To enable/improve the capture of objects with difficult appearance properties. To increase accessibility to data and software supporting photogrammetry and inverse rending research at other institutions. To empower the digital preservation and exhibition of three-dimensional cultural heritage artifacts for galleries, libraries, archives, and museums.

The grant was awarded to the University of Wisconsin Stout, a primarily undergraduate, public university. The equipment will be housed in the university Fabrication Lab which is accessible to all students on campus. It will also be used to support curriculum in courses for the Game Design and Development (GDD) Program, the Professional Communication and Emerging Media (PCEM) Program, and other design programs. Justification for Duty-Free Entry: According to the applicant, there are no instruments of the same general category manufactured in the United States. Application accepted by Commissioner of Customs: December 13, 2022.

Docket Number: 23–007. Applicant: The Board of Trustees of the Colorado School of Mines for and on Behalf of the Colorado School of Mines, 1500 Illinois Street, Golden, CO 80401. Instrument: Oxide Molecular Beam Epitaxy System. Manufacturer: Scienta Omicron, Germany. Intended Use: Oxide thin films will be grown for materials discovery and materials science research. The identity of the materials or phenomena to be studied: Oxide and metal thin film materials that are insulating, semiconducting, or metals (ie. YMnO3, IrO2). The properties of the materials or phenomena to be investigated: Primarily study of their functional properties (such as ferroelectric, piezoelectric, and/or ferromagnetic) or for growth of surfaces relevant to energy conversion and storage applications (electrolysis, fuel cells, ion transport). The experiments to be conducted: Thin film growth using in situ reflection high energy electron diffraction (RHEED) surface monitoring and studies. The objectives pursued during the investigations are the development of novel materials for functional and energy applications, fundamental science surface and materials properties studies. The techniques used in employing the instrument to achieve the objectives: Oxide molecular beam epitaxy growth, RHEED. Justification for Duty-Free Entry: According to the applicant, there are no instruments of the same general category manufactured in the United States. Application accepted by Commissionerof Customs: September 8, 2021.

Docket Number: 23–008. Applicant: Arizona State University, 1711 S. Rural Road, Tempe, AZ 85281. Instrument: Cheetah 1 X-by-wire Automated Vehicle Chassis. Manufacturer: Shanghai Liaison Tech Co., Ltd., China. Intended Use: The Cheetah Chassis (model cars) will be used to develop a small testbed, and add IMU sensors, GPS, mmWave radar, communication modules, and motor controllers on each of the Cheeta Chassis. Experiments will be run on model cars to test the sensing and connectivity between vehicles, with the objectives being to test functionalities including, V2V and V2I communications, sensing and vehicle automation control algorithms. First, simulation studies will run in the lab, and then implement the modules on the testbed and run experiments in parking lots to achieve the objectives. Justification for Duty-Free Entry: According to the applicant, there are no instruments of the same general category manufactured in the United States. Application accepted by Commissionerof Customs: March 22, 2022.

Docket Number: 23–009. Applicant: University of Chicago, 5640 S Elis Avenue, ERC LL248, Chicago, IL 60637. Instrument: Fiber Laser and Fiber Amplifier. Manufacturer: Precilasers, China. Intended Use: Experimentally demonstrate entanglement generation between our atoms by creating Bell Pairs (a state of two maximally entangled atoms) and measuring parity oscillations when we drive them with a laser. Next, we will use our ability to generate entanglement to create and measure more exotic entangled states, such as ''cluster states'', which promise to be useful for measurement-based quantum computation. There will be other quantum phenomena we will investigate along the way, such as using our entangled states for electric field measurements, but eventually we will experimentally develop single-atom laser control, which will allow us to perform almost arbitrary programmable quantum computation. Justification for Duty-Free Entry: According to the applicant, there are no instruments of the same general category manufactured in the United States. Application accepted by Commissioner of Customs: June 28, 2022.

Docket Number: 23–010. Applicant: Arizona State University, 1711 S. Rural Road, Tempe, AZ 85281. Instrument: Cheetah 1 X-by-wire Automated Vehicle Chassis. Manufacturer: Shanghai Liaison Tech Co., Ltd., China. Intended Use: The Cheetah Chassis (model cars) will be used to develop a small testbed, and add IMU sensors, GPS, mmWave radar, communication modules, and motor controllers on each of the Cheeta Chassis. Experiments will be run on model cars to test the sensing and connectivity between vehicles, with the objectives being to test functionalities including V2V and V2I communications, sensing and vehicle automation control algorithms. First, simulation studies will run in the lab, and then implement the modules on the testbed and run experiments in parking lots to achieve the objectives. Justification for Duty-Free Entry: According to the applicant, there are no instruments of the same general category manufactured in the United States. Application accepted by Commissioner of Customs: March 10, 2023.

Docket Number: 23–011. Applicant: Arizona State University, 1711 S. Rural Road, Tempe, AZ 85281. Instrument: Cheetah 1 X-by-wire Automated Vehicle Chassis. Manufacturer: Shanghai Liaison Tech Co., Ltd., China. Intended Use: The Cheetah Chassis (model cars) will be used to develop a small testbed, and add IMU sensors, GPS, mmWave radar, communication modules, and motor controllers on each of the Cheeta Chassis. Experiments will be run on model cars to test the sensing and connectivity between vehicles, with the objectives being to test functionalities including V2V and V2I communications, sensing, and vehicle automation control algorithms. First, simulation studies will run in the lab, and then implement the modules on the testbed and run experiments in parking lots to achieve the objectives. Justification for Duty-Free Entry: According to the applicant, there are no instruments of the same general category manufactured in the United States. Application accepted by Commissioner of Customs: March 10, 2023.

Docket Number: 23–012. Applicant: Drexel University, 3141 Chestnut Street, Philadelphia, PA 19104. Instrument:

Roll-to-Roll Coater. Manufacturer: InfinityPV ApS, Denmark. Intended Use: The instrument will be used to study the processing of halide perovskite thin films for application in solar cells. Perovskites have ideal optical and electronic properties for solar energy conversion, but work remains to understand how to obtain these desirable properties while processing in a high-speed roll-to-roll manner. Vary coating, drying, and annealing conditions to understand how processing affects material properties. The objective is to uncover conditions that lead to photovoltaic-grade perovskite films at web speeds larger than 1 m/min. The instrument must fit in a fume hood and within the project budget. This research is supported by the National Science Foundation under the award CMMI–1933819. Justification for Duty-Free Entry: According to the applicant, there are no instruments of the same general category manufactured in the United States. Application accepted by Commissioner of Customs: April 6, 2022.

Docket Number: 23–013. Applicant: New Mexico Institute of Mining and Technology Magadalena Ridge Observatory Interferometer (MROI), 801 Leroy Place, Socorro, NM 87801. Instrument: Unit Telescope. Manufacturer: Advanced Mechanical and Optical Systems (AMOS), Belgium. Intended Use: To better understand the universe and the processes that take place within it by observation of objects whose structure, origins and fate are not properly understood at present. These research areas are fundamental to expanding the knowledge of particle physics, as well as understanding the origins of the Universe and Earth. Justification for Duty-Free Entry: According to the applicant, there are no instruments of the same general category manufactured in the United States. Application accepted by Commissioner of Customs: March 2, 2023.

Dated: April 28, 2023.

Gregory W. Campbell,

Director, Subsidies and Economic Analysis, Enforcement and Compliance.

[FR Doc. 2023–09463 Filed 5–3–23; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[A–552–802]

Certain Frozen Warmwater Shrimp From the Socialist Republic of Vietnam: Final Results and Final Determination of No Shipments of Antidumping Duty Administrative Review; 2021–2022

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) determines that four companies under review made no shipments of the subject merchandise during the period of review (POR). Commerce also determines that no other companies under review qualify for a separate rate, and that these companies are, therefore, considered part of the Vietnam-Wide entity. The period of review (POR) is February 1, 2021, through January 31, 2022.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Jonathan Schueler or Katie Marksberry, AD/CVD Operations, Office VIII, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–9175, or (202) 482–7906, respectively.

SUPPLEMENTARY INFORMATION:

Background

On January 3, 2023, Commerce published in the **Federal Register** the preliminary results [1] of the administrative review of the antidumping duty order on certain frozen warmwater shrimp from the Socialist Republic of Vietnam (Vietnam). This review covers 96 companies preliminarily determined to be part of the Vietnam-wide entity and four companies preliminarily determined to have no reviewable transactions during the POR. We invited parties to comment on the *Preliminary Results.*[2] No interested party submitted comments. Accordingly, the final results are unchanged from the *Preliminary Results.* Commerce conducted this administrative review in accordance with section 751(a) of the Tariff Act of 1930, as amended (the Act).

Scope of the Order [3]

The merchandise subject to the *Order* is certain frozen warmwater shrimp from Vietnam. For a full description of the scope of the *Order, see* the *Preliminary Results.*[4]

Final Determination of No Shipments

In the *Preliminary Results,* Commerce found that four companies: (1) BIM Foods Joint Stock Company; (2) Minh Phu Hau Giang Seafood; (3) Minh Phu Seafood Corporation; and (4) Minh Qui Seafood Co., Ltd,[5] did not have any reviewable transactions during the POR. As we have not received any information to contradict this preliminary finding, Commerce determines that these four companies did not have any reviewable entries of subject merchandise during the POR and will issue instructions that are consistent with our ''automatic assessment'' policy, described below.

Final Results of Administrative Review

As no parties submitted comments regarding the *Preliminary Results,* Commerce made no changes to its determinations for the final results of this review. For these final results, Commerce continues to find that the only three companies that submitted separate rate applications in this review did not establish eligibility for a separate rate.[6] Based on the above

[1] *See Certain Frozen Warmwater Shrimp from the Socialist Republic of Vietnam: Preliminary Results, Partial Rescission, and Preliminary Determination of No Shipments of Antidumping Duty Administrative Review; 2021–2022,* 88 FR 58 (January 3, 2023) (*Preliminary Results*).

[2] *Id.*

[3] *See Notice of Amended Final Determination of Sales at Less Than Fair Value and Antidumping Duty Order: Certain Frozen Warmwater Shrimp from the Socialist Republic of Vietnam,* 70 FR 5152 (February 1, 2005) (*Order*).

[4] *See Preliminary Results,* 88 FR at 59 and Appendix I.

[5] As stated in the *Preliminary Results,* shrimp produced and exported by Minh Phu Hau Giang Seafood, Minh Phu Seafood Corporation, and Minh Qui Seafood Co., Ltd., among others, were excluded from the *Order* effective July 18, 2016. *See Certain Frozen Warmwater Shrimp from the Socialist Republic of Vietnam: Notice of Implementation of Determination Under Section 129 of the Uruguay Round Agreements Act and Partial Revocation of the Antidumping Duty Order,* 81 FR 47756, 47757–58 (July 22, 2016). Accordingly, this review was initiated for these three exporters only with respect to subject merchandise produced by another entity. *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 87 FR 21619 (April 12, 2022) (footnotes 8 through 10).

[6] These three companies are: (1) Quang Minh Seafood Co., Ltd. (Quang Minh); (2) Safe and Fresh Aquatic Products Joint Stock Company (Safe Fresh Aquatic); and (3) Ngoc Trinh Bac Lieu Seafood Co., Ltd. (Ngoc Trinh). Quang Minh and Ngoc Trinh submitted separate rate applications and were selected as mandatory respondents in this review, but subsequently withdrew from the review. Safe Fresh Aquatic submitted a separate rate application but also subsequently withdrew from the review. *See Preliminary Results* for the complete discussion.

information, Commerce has not calculated any dumping margins for any companies under review, nor has Commerce granted separate rates to any companies under review. Commerce continues to find that that the 96 companies under review, including the three companies discussed above, are part of the Vietnam-wide entity, and are subject to the Vietnam-wide entity rate of 25.76 percent (*see* Appendix).

Because no party requested a review of the Vietnam-wide entity, and we did not self-initiate a review, the Vietnam-wide entity rate (*i.e.,* 25.76 percent)[7] is not subject to change as a result of this review.

Assessment Rates

Pursuant to section 751(a)(2)(A) of the Act and 19 CFR 351.212(b)(1), Commerce will determine, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries of subject merchandise covered by this review. Commerce intends to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

We have not calculated any assessment rates in this administrative review. With regard to the 96 companies identified in the Appendix as part of the Vietnam-wide entity, we will instruct CBP to apply an *ad valorem* assessment rate of 25.76 percent to all entries of subject merchandise during the POR which were produced and/or exported by those companies. Additionally, with respect to the four companies which Commerce determined made no shipments of the subject merchandise during the POR, consistent with Commerce's assessment practice in non-market economy (NME) cases, we will instruct CBP to liquidate any suspended entries that entered under that exporter's case number (*i.e.,* at that exporter's rate) at the NME-wide rate.[8]

Cash Deposit Requirements

The following cash deposit requirements will be effective upon publication of the final results of this administrative review for shipments of the subject merchandise from Vietnam entered, or withdrawn from warehouse, for consumption on or after the publication date, as provided by sections 751(a)(2)(C) of the Act: (1) for previously investigated or reviewed Vietnamese and non-Vietnamese exporters that are not under review in this segment of the proceeding but have separate rates, the cash deposit rate will continue to be the exporter's existing cash deposit rate; (2) for all Vietnam exporters of subject merchandise that have not been found to be entitled to a separate rate, the cash deposit rate will be the existing rate for the Vietnam-wide entity of 25.76 percent; and (3) for all non-Vietnam exporters of subject merchandise which have not received their own rate, the cash deposit rate will be the rate applicable to the Vietnam exporter that supplied that non-Vietnam exporter. These deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice also serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

Administrative Protective Order (APO)

This notice also serves as a final reminder to parties subject to APO of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with 19 CFR 351.305, which continues to govern business proprietary information in this segment of the proceeding. Timely written notification of the return or destruction of APO materials, or conversion to judicial protective order, is hereby requested. Failure to comply with the regulations and terms of an APO is a violation which is subject to sanction.

Notification to Interested Parties

These final results are issued and published in accordance with sections 751(a)(1)(B) and 777(i)(1) of the Act and 19 CFR 351.221(b)(5).

Dated: April 28, 2023.

Ryan Majerus,

Deputy Assistant Secretary for Policy and Negotiations.

Appendix

Companies Under Review Determined to Be Part of the Vietnam-Wide Entity

1. Amanda Seafood Co., Ltd.
2. An Nguyen Investment Production and Group
3. Anh Khoa Seafood
4. Anh Minh Quan Corp.
5. APT Co.
6. Au Vung One Seafood
7. Binh Dong Fisheries Joint Stock Company
8. Binh Thuan Import-Export Joint Stock Company
9. Blue Bay Seafood Co., Ltd.
10. Cadovimex
11. Cadovimex II Seafood Import Export and Processing Joint Stock Company
12. Cadovimex Seafood Import-Export and Processing Joint Stock Company
13. Cantho Import Export Seafood Joint Stock Company
14. Caseamex
15. CJ Cau Tre Foods Joint Stock Company
16. Coastal Fisheries Development Corporation
17. COFIDEC
18. Danang Seafood Import Export
19. Danang Seaproducts Import-Export Corporation
20. Dong Hai Seafood Limited Company
21. Dong Phuong Seafood Co., Ltd.
22. Duc Cuong Seafood Trading Co., Ltd.
23. Duong Hung Seafood
24. FFC
25. Fine Foods Company
26. Gallant Dachan Seafood Co., Ltd.
27. Gallant Ocean (Vietnam) Co. Ltd.
28. Go Dang Joint Stock Company
29. GODACO Seafood
30. Green Farms Seafood Joint Stock Company
31. Hanh An Trading Service Co., Ltd.
32. Hong Ngoc Seafood Co., Ltd.
33. Hung Bang Company Limited
34. Hung Dong Investment Service Trading Co., Ltd.
35. HungHau Agricultural Joint Stock Company
36. JK Fish Co., Ltd.
37. Khanh Hoa Seafoods Exporting Company
38. KHASPEXCO
39. Long Toan Frozen Aquatic Products Joint Stock Company
40. MC Seafood
41. Minh Bach Seafood Company Limited
42. Minh Cuong Seafood Import Export Processing Joint Stock Company
43. Nam Viet Seafood Import Export Joint Stock Company
44. Namcan Seaproducts Import Export Joint Stock Company
45. New Generation Seafood Joint Stock Company
46. New Wind Seafood Co., Ltd.
47. Ngoc Trinh Bac Lieu Seafood Co., Ltd.
48. Nguyen Chi Aquatic Product Trading Company Limited
49. Nhat Duc Co., Ltd.
50. Nigico Co., Ltd.
51. Phuong Nam Foodstuff Corp.

[7] *See Order.*

[8] For a full discussion of this practice, *see Non-Market Economy Antidumping Proceedings: Assessment of Antidumping Duties,* 76 FR 65694 (October 24, 2011).

52. Quang Minh Seafood Co., Ltd.
53. QAIMEXCO
54. Quoc Ai Seafood Processing Import Export Co., Ltd.
55. Quoc Toan PTE
56. Quoc Toan Seafood Processing Factory
57. Quy Nhon Frozen Seafoods Joint Stock Company
58. Safe and Fresh Aquatic Products Joint Stock Company
59. Safe and Fresh Co.
60. Saigon Aquatic Product Trading Joint Stock Company
61. Saigon Food Joint Stock Company
62. SEADANANG
63. Seafood Joint Stock Company No. 4
64. Seafood Travel Construction Import-Export Joint Stock Company
65. Seanamico
66. Seaspimex Vietnam
67. South Ha Tinh Seaproducts Import-Export Joint Stock Company
68. South Vina Shrimp–SVS
69. Southern Shrimp Joint Stock Company
70. Special Aquatic Products Joint Stock Company
71. T & P Seafood Company Limited
72. Tai Nguyen Seafood Co., Ltd.
73. Tan Phong Phu Seafood Co., Ltd.
74. Tan Thanh Loi Frozen Food Co., Ltd.
75. THADIMEXCO
76. Thai Hoa Foods Joint Stock Company
77. Thai Minh Long Seafood Company Limited
78. Thaimex
79. Thanh Doan Fisheries Import-Export Joint Stock Company
80. Thanh Doan Sea Products Import & Export Processing Joint-Stock Company
81. Thanh Doan Seafood Import Export Trading Joint-Stock Company
82. The Light Seafood Company Limited
83. Thien Phu Export Seafood
84. Thinh Hung Co., Ltd.
85. Thinh Phu Aquatic Products Trading Co., Ltd.
86. TPP Co. Ltd.
87. Trading and Import-Export Co., Ltd.
88. Trang Corporation (Vietnam)
89. Trung Son Seafood Processing Joint Stock Company
90. Van Duc Food Company Limited
91. Viet Phu Foods and Fish Corp.
92. Viet Shrimp Corporation
93. VIFAFOOD
94. Vinh Hoan Corp.
95. Vinh Phat Food Joint Stock Company
96. XNK Thinh Phat Processing Company

[FR Doc. 2023–09509 Filed 5–3–23; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[A–533–843]

Certain Lined Paper Products From India: Amended Final Results of Antidumping Duty Administrative Review; 2020–2021

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) is amending the final results of the administrative review of the antidumping duty order on certain lined paper products from India to correct one ministerial error. The period of review (POR) is September 1, 2020, through August 31, 2021.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Samuel Brummitt, AD/CVD Operations, Office III, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–7851.

SUPPLEMENTARY INFORMATION:

Background

On April 12, 2023, the Commerce published its *Final Results* of the 2020–2021 administrative review of the antidumping duty order on certain lined paper products from India.[1] On April 11, 2023, Commerce disclosed its calculations to interested parties and provided interested parties with the opportunity to submit ministerial error comments.[2] On April 20, 2023, the Association of American School Paper Suppliers and its individual members (the petitioners) timely submitted ministerial error comments regarding Commerce's *Final Results.*[3] Commerce is amending its *Final Results* to correct a ministerial error alleged by the petitioners.

Legal Framework

A ministerial error, as defined in section 751(h) of the Tariff Act of 1930, as amended (the Act), includes ''errors in addition, subtraction, or other arithmetic function, clerical errors resulting from inaccurate copying, duplication, or the like, and any other type of unintentional error which the {Commerce} considers ministerial.''[4] With respect to final results of administrative reviews, 19 CFR 351.224(e) provides that Commerce ''will analyze any comments received and, if appropriate, correct any ministerial error by amending . . . the final results of review . . . .''

Ministerial Errors

In the final results of the review, Commerce made an inadvertent error within the meaning of section 751(h) of the Act and 19 CFR 351.224(f) with respect to standardizing the variable length for the product characteristic variables in Cellpage Ventures Private Limited's (Cellpage) sales and cost databases. Accordingly, Commerce determines that, in accordance with section 751(h) of the Act and 19 CFR 351.224(f), it made a ministerial error in the *Final Results.*

For a complete description and analysis of the specific inadvertent error, and the petitioners' ministerial error allegation, *see* the accompanying Ministerial Error Allegation Memorandum.[5] The Ministerial Error Allegation Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov.*

Pursuant to 19 CFR 351.224(e), Commerce is amending the *Final Results* to reflect the correction of this ministerial error in the calculation of the weighted-average dumping margin assigned to Cellpage in the *Final Results,* which changes from 2.63 percent to 3.21 percent.[6] Furthermore, we are revising the review-specific, weighted-average dumping margin applicable to the companies not selected for individual examination in this administrative review, which is based on Cellpage's weighted-average dumping margin.[7]

In addition to the ministerial error described above, we are also including SGM Paper Products among the companies not selected for individual examination in these amended final results. SGM Paper Products was inadvertently excluded from the list of companies not selected for individual examination in the *Final Results.*[8]

[1] *See Certain Lined Paper Products from India: Final Results of Antidumping Duty Administrative Review and Final Determination of No Shipments; 2020–2021,* 88 FR 21971 (April 12, 2023) (*Final Results*).

[2] *See* Memoranda, ''Deadline for Ministerial Error Comments for the Final Results,'' dated April 11, 2023; and ''Extension of Deadline for Ministerial Error Comments,'' dated April 14, 2023.

[3] *See* Petitioners' Letter, ''Ministerial Error Comments,'' dated April 20, 2023.

[4] *See* 19 CFR 351.224(f).

[5] *See* Memorandum, ''Ministerial Error Allegation,'' dated concurrently with this notice (Ministerial Error Allegation Memorandum).

[6] *Id.; see also Final Results,* 88 FR at 21972.

[7] We assigned Cellpage's rate to the non-selected companies because it was the only individually calculated weighted-average dumping margin, which is not zero, *de minimis,* or determined entirely on the basis of facts available. *See Final Results,* 88 FR at 21971.

[8] *See Certain Lined Paper Products from India: Preliminary Results of Antidumping Duty Administrative Review; Rescission of Administrative Review, in Part; and Preliminary Determination of No Shipments; 2020–2021,* 87 FR 60650 at 60652 (October 6, 2022); *see also Final Results,* 88 FR at 21972.

Amended Final Results of Review

As a result of correcting this ministerial error, Commerce determines that, for the period September 1, 2020, through August 31, 2021, the following weighted-average dumping margins exist:

Producer or exporter	Weighted-average dumping margin (percent)
Cellpage Ventures Private Limited	3.21
Navneet Education Ltd [9]	0.00
Goldenpalm Manufacturers PVT Limited	3.21
ITC Limited-Education and Stationery Products Business [10]	3.21
Lotus Global Private Limited	3.21
Pioneer Stationery Pvt. Ltd	3.21
PP Bafna Ventures Private Limited	3.21
SGM Paper Products	3.21
Magic International Pvt. Ltd [11]	215.93
Marisa International [12]	215.93

Disclosure

We intend to disclose the calculations performed for these amended final results to parties in this review within five days of the date of publication of this notice in the **Federal Register**, in accordance with 19 CFR 351.224(b).

Assessment Rate

Pursuant to section 751(a)(2)(C) of the Act and 19 CFR 351.212(b)(1), Commerce has determined, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries of subject merchandise in accordance with these amended final results of the administrative review.

Pursuant to 19 CFR 351.212(b)(1), where the respondent reported the entered value of its U.S. sales, we calculated importer-specific *ad valorem* duty assessment rates based on the ratio of the total amount of dumping calculated for the examined sales to the total entered value of the sales for which entered value was reported. Where the respondent did not report entered value, we calculated the entered value in order to calculate the assessment rate. Where either the respondent's weighted-average dumping margin is zero or *de minimis* within the meaning of 19 CFR 351.106(c)(1), or an importer-specific rate is zero or *de minimis,* we will instruct CBP to liquidate the appropriate entries without regard to antidumping duties.

For the companies that were not selected for individual examination, we will assign an assessment rate based on the cash deposit rates calculated for the mandatory respondents in this review, *i.e.,* Cellpage and Navneet Education Ltd, excluding any rates that are zero, *de minimis,* or determined entirely based on facts available. For the non-selected respondents listed above, the amended final results of this review shall be the basis for the assessment of antidumping duties on entries of merchandise covered by the amended final results of this review and for future deposits of estimated duties, where applicable.[13]

Commerce's ''automatic assessment'' will apply to entries of subject merchandise during the POR produced by companies included in these amended final results of review for which the individually-examined companies did not know that the merchandise they sold to the intermediary (*e.g.,* a reseller, trading company, or exporter) was destined for the United States. In such instances, we will instruct CBP to liquidate unreviewed entries at the all-others rate if there is no rate for the intermediate company(ies) involved in the transaction.

Commerce intends to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the amended final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

Cash Deposit Requirements

The following cash deposit requirements will be effective retroactively for all shipments of subject merchandise that entered, or were withdrawn from warehouse, for consumption on or after April 12, 2023, the date of publication of the *Final Results* of this administrative review, as provided for by section 751(a)(2)(C) of the Act: (1) the cash deposit rate for the companies listed above will be equal to the weighted-average dumping margin established in these amended final results of review; (2) for producers or exporters not covered in this review but covered in a prior segment of the proceeding, the cash deposit rate will continue to be the company-specific rate published for the most recently completed segment of this proceeding; (3) if the exporter is not a firm covered in this review or another completed segment of this proceeding, but the producer is, then the cash deposit rate will be the rate established for the most recently completed segment of this proceeding for the producer of the merchandise; and (4) if neither the exporter nor the producer is a firm covered in this or any previously completed segment of this proceeding, then the cash deposit rate will be the all-others rate of 3.91 percent established in the less-than-fair-value investigation.[14] These cash deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice also serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping and/or countervailing duties prior to liquidation of the relevant entries during this POR. Failure to comply with this requirement could result in the Commerce's presumption that reimbursement of antidumping and/or countervailing duties occurred and the subsequent assessment of double antidumping duties, and/or an increase in the amount of antidumping duties by the amount of the countervailing duties.

Administrative Protective Order

This notice also serves as a reminder to parties subject to an administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3), which continues to govern business proprietary information in this segment of the proceeding. Timely written notification of return or destruction of APO materials or conversion to judicial

[9] The weighted-average dumping margin for Navneet Education Ltd remains unchanged from the *Final Results. See Final Results,* 88 FR at 21972.

[10] The correct name of the company is ITC Limited-Education and Stationery Products Business. Commerce has previously incorrectly referred to this company as ITC Limited-Education and Stationary Products Business.

[11] The weighted-average dumping margin for Magic International Pvt. Ltd remains unchanged from the *Final Results. See Final Results,* 88 FR at 21972.

[12] The weighted-average dumping margin for Marisa International remains unchanged from the *Final Results. See Final Results,* 88 FR at 21972.

[13] *See* section 751(a)(2)(C) of the Act.

[14] *See Notice of Amended Final Determination of Sales at Less Than Fair Value: Certain Lined Paper Products from the People's Republic of China; Notice of Antidumping Duty Orders: Certain Lined Paper Products from India, Indonesia and the People's Republic of China*); *and Notice of Countervailing Duty Orders: Certain Lined Paper Products from India and Indonesia,* 71 FR 56949 (September 28, 2006).

protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

Notification to Interested Parties

The amended final results and notice are issued and published in accordance with sections 751(h) and 777(i) of the Act and 19 CFR 351.224(e).

Dated: April 28, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

[FR Doc. 2023–09510 Filed 5–3–23; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–954, C–570–955]

Certain Magnesia Carbon Bricks From the People's Republic of China: Final Determination in Covered Merchandise Inquiry

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) determines that certain refractory brick samples tested by U.S. Customs and Border Protection (CBP) do not reflect the chemical composition of magnesia alumina carbon (MAC) bricks and are covered by the antidumping duty (AD) and countervailing duty (CVD) orders on certain magnesia carbon bricks (bricks) from the People's Republic of China (China). Additionally, Commerce finds that it is unable to determine whether certain other samples tested by CBP have the chemical composition of a bricks subject to the AD and CVD orders on bricks from China.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Brittany Bauer, AD/CVD Operations Office V, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–3860.

SUPPLEMENTARY INFORMATION:

Background

On February 17, 2023, Commerce published in the **Federal Register** the preliminary results of this covered merchandise inquiry, determining that certain refractory bricks are subject to the AD and CVD orders on bricks from China.[1] Commerce received comments from Fedmet Resources Corporation (Fedmet)[2] and the Magnesia Carbon Bricks Fair Trade Committee (Committee).[3] For a complete description of the events that followed the *Preliminary Results, see* the Issues and Decision Memorandum.[4]

The Issues and Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov.* In addition, the Issues and Decision Memorandum can be accessed directly at *https://access.trade.gov/public/FRNoticesListLayout.aspx.*

Scope of the Orders

The merchandise covered by the *Orders* is magnesia carbon bricks. For a complete description of the scope of the *Orders, see* the Issues and Decision Memorandum.

Merchandise Subject to the Covered Merchandise Inquiry

The products subject to this inquiry are certain refractory bricks which were imported by Fedmet. CBP's laboratories tested 11 samples from these bricks and provided the results of chemical composition tests for the merchandise in its referral to Commerce.

Analysis of Comments Received

All issues raised in the case and rebuttal briefs that were submitted by parties in this inquiry are addressed in the Issues and Decision Memorandum. For a list of the issues raised by interested parties and addressed in the Issues and Decision Memorandum, *see* the Appendix to this notice.

Final Determination

We determine, pursuant to 19 CFR 351.227(e)(2), that certain bricks tested by CBP laboratories do not constitute (non-subject) MAC bricks and, thus, are subject to the scope of the *Orders.* Although we can make such a determination for two of the eleven brick samples, the information on the remaining nine samples is indeterminate regarding the proper scope classification for the underlying products tested by CBP. In reaching this determination, we relied on information placed on the record by the Committee and Fedmet, as well as the documents included with the referral from CBP. For a full description of the analysis underlying our conclusions, *see* the Issues and Decision Memorandum.

Continuation of Suspension of Liquidation

As stated above, Commerce has made an affirmative finding that certain of the bricks tested by CBP, which were the subject of this referral from CBP, are subject to the scope of the *Orders.* This affirmative in-scope finding applies on a country-wide basis, regardless of the producer, exporter, or importer, to all products from the same country with the same relevant physical characteristics as the products at issue that were determined to be within the scope of the *Orders.* Therefore, in accordance with 19 CFR 351.227(l)(3), Commerce will direct CBP to: (1) continue the suspension of liquidation of previously suspended entries and apply the applicable cash deposit rate; (2) suspend liquidation and require a cash deposit of estimated duties, at the applicable rate, for each unliquidated entry of the product not yet suspended, entered, or withdrawn from warehouse, for consumption on or after July 20, 2022, the date of publication of the notice of initiation of this covered merchandise inquiry in the **Federal Register***;* and (3) suspend liquidation and require a cash deposit of estimated duties, at the applicable rate, for each unliquidated entry of the product not yet suspended, entered, or withdrawn from warehouse, for consumption prior to July 20, 2022, but after November 4, 2021.[5]

Customs and Border Protection Notification

In accordance with section 517(b)(4)(B) of the Act, we will notify CBP of the final determination in this covered merchandise inquiry. Commerce will direct CBP to assess, upon further instruction by Commerce, AD and CVD duties on all imports of certain refractory bricks having less than

[1] *See Certain Magnesia Carbon Bricks from the People's Republic of China: Preliminary Results of Covered Merchandise Inquiry,* 88 FR 10292 (February 17, 2023) (*Preliminary Results*). *See also Certain Magnesia Carbon Bricks from Mexico and the People's Republic of China: Antidumping Duty Orders,*75 FR 57257 (September 20, 2010); and *Certain Magnesia Carbon Bricks from the People's Republic of China: Countervailing Duty Order,* 75 FR 57442 (September 21, 2010) (collectively, *Orders*).

[2] *See* Fedmet's Letter, ''Fedmet's Case Brief,'' dated February 28, 2023.

[3] *See* Committee's Letter, ''Rebuttal Brief,'' dated March 7, 2023.

[4] *See* Memorandum, ''Decision Memorandum for the Final Determination of Covered Merchandise Inquiry—EAPA Inv. 7412: Certain Magnesia Carbon Bricks from the People's Republic of China,'' dated concurrently with, and hereby adopted by, this notice (Issues and Decision Memorandum).

[5] *See Certain Magnesia Carbon Bricks from the People's Republic of China: Notice of Covered Merchandise Referral and Initiation of Covered Merchandise Inquiry,* 87 FR 43238 (July 20, 2022).

five percent alumina levels upon importation (as measured by a testing protocol that does not create aluminum oxidation in the tested materials, or that accounts for such distortions in the resulting chemical composition analysis) and otherwise meeting the parameters of the scope of the *Orders,* entered, or withdrawn from warehouse, for consumption on or after the effective date of the suspension of liquidation, as discussed above in the ''Continuation of Suspension of Liquidation'' section.

Notification Regarding Administrative Protective Order

This notice serves as the only reminder to parties subject to administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3), which continues to govern business proprietary information in this segment of the proceeding. Timely written notification of the return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

Notification to Interested Parties

This notice is issued and published pursuant to section 517 of the Act and 19 CFR 351.227(e)(2).

Dated: April 27, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Issues and Decision Memorandum

I. Summary
II. Background
III. Scope of the *Orders*
IV. Description of Merchandise Subject to This Inquiry
V. Discussion of the Issues
Comment 1: Whether Commerce Has Impermissibly Modified the Fedmet Ruling
Comment 2: Whether Commerce Should Find That None of the Brick Samples Constitute Subject Merchandise
VI. Summary
VII. Recommendation

[FR Doc. 2023–09428 Filed 5–3–23; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[C–570–054]

Certain Aluminum Foil From the People's Republic of China: Preliminary Results of Countervailing Duty Administrative Review and Rescission of Review, in Part; 2021

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (Commerce) preliminarily determines that producers and exporters of certain aluminum foil (aluminum foil) from the People's Republic of China (China) received countervailable subsidies during the period of review (POR), January 1, 2021, through December 31, 2021.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Natasia Harrison, AD/CVD Operations, Office VI, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–1240.

SUPPLEMENTARY INFORMATION:

Background

On June 9, 2022, Commerce published a notice of initiation of an administrative review of the order,[1] covering the requested companies.[2] As explained below, on September 7, 2022, the Aluminum Association Trade Enforcement Working Group (the petitioners) withdrew their review requests with respect to certain companies.[3] On December 8, 2022, Commerce extended the deadline for completion of these preliminary results until no later than April 28, 2023.[4]

For a complete description of the events that followed the initiation of this review, see the Preliminary Decision Memorandum.[5] A list of topics discussed in the Preliminary Decision Memorandum is included appendix I to this notice. The Preliminary Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *http://access.trade.gov.* In addition, a complete version of the Preliminary Decision Memorandum can be accessed directly at *https://access.trade.gov/public/FRNoticesListLayout.aspx.*

Scope of the Order

The product covered by the *Order* is aluminum foil from China. For a complete description of the scope of the *Order,* see the Preliminary Decision Memorandum.

Methodology

Commerce is conducting this review in accordance with section 751(a)(l)(A) of the Tariff Act of 1930, as amended (the Act). For each of the subsidy programs found countervailable, we preliminarily determine that there is a subsidy, *i.e.,* a financial contribution by an ''authority'' that gives rise to a benefit to the recipient, and that the subsidy is specific.[6] For a full description of the methodology underlying our conclusions, see the accompanying Preliminary Decision Memorandum.

Commerce notes that, in making these findings, it relied, in part, on facts available and, because it finds that the Government of China did not act to the best of its ability to respond to Commerce's requests for certain information, it drew an adverse inference, where appropriate, in selecting from among the facts otherwise available. For further information, *see* the Preliminary Decision Memorandum at ''Use of Facts Otherwise Available and Adverse Inferences.''

The subsidy rate calculated in these preliminary results for the mandatory respondent reflects an entered value adjustment.[7]

Rescission of Administrative Review, in Part

Pursuant to 19 CFR 351.213(d)(1), Commerce will rescind an

[1] *See Certain Aluminum Foil from the People's Republic of China: Amended Final Affirmative Countervailing Duty Determination and Countervailing Duty Order,* 83 FR 17360 (April 19, 2018) (*Order*).

[2] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 87 FR 35165 (June 9, 2022) (*Initiation Notice*).

[3] *See* Petitioners' Letter, ''Petitioners' Partial Withdrawal of Requests for Administrative Reviews,'' dated September 7, 2022 (Petitioners' Withdrawal of Review Requests).

[4] *See* Memorandum, ''Extension of Deadline for Preliminary Results of Countervailing Duty Administrative Review; 2021,'' dated December 8, 2022.

[5] *See* Memorandum, ''Decision Memorandum for the Preliminary Results of the Countervailing Duty Administrative Review of Certain Aluminum Foil from the People's Republic of China; 2021,'' dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

[6] *See* sections 771(5)(B) and (D) of the Act regarding financial contribution; section 771(5)(E) of the Act regarding benefit; and section 771(5A) of the Act regarding specificity.

[7] *See* Preliminary Decision Memorandum at ''Entered Value Adjustment,'' for a discussion of the methodology.

administrative review, in whole or in part, if the party or parties that requested a review withdraw the request within 90 days of the publication date of the notice of initiation of the requested review. As noted above the petitioners timely withdrew their requests for review of certain companies.[8]

Because no other party requested a review of these 15 companies, and in accordance with 19 CFR 351.213(d)(1), we are rescinding the review with respect to these companies (see appendix II).

Preliminary Results of Review

Commerce preliminarily determines that, during the POR, the following countervailable subsidy rates exist:

Company	Subsidy rate (percent *ad valorem*)
Anhui Zhongji Battery Foil Science & Technology Co., Ltd. (aka Anhui Zhongji Battery Foil Sci&Tech Co., Ltd.); Jiangsu Huafeng Aluminum Industry Co., Ltd.; Jiangsu Zhongji Lamination Materials Co., Ltd. (f/k/a Jiangsu Zhongji Lamination Materials Stock Co., Ltd.); Jiangsu Zhongji Lamination Materials Co., (HK) Limited; and Shantou Wanshun New Material Group Co., Ltd. (f/k/a Shantou Wanshun Package Material Stock Co., Ltd.)[9]	[10] 24.37
Dingsheng Aluminum Industries (Hong Kong) Trading Co., Ltd.; Hangzhou DingCheng Aluminum Co., Ltd.; Hangzhou Dingsheng Import & Export Co. Ltd.; Hangzhou Dingsheng Industrial Group Co. Ltd.; Hangzhou Five Star Aluminium Co., Ltd.; Hangzhou Teemful Aluminum Co., Ltd.; Jiangsu Dingsheng New Materials Joint-Stock Co., Ltd.; Luoyang Longding Aluminium Industries Co., Ltd.; and Walson (HK) Trading Co., Limited.[11]	[12] 25.20
Shanghai Shenyan Packaging Materials Co., Ltd	[13] 25.20

Assessment Rates

Consistent with section 751(a)(2)(C) of the Act, upon issuance of the final results, Commerce shall determine, and U.S. Customs and Border Protection (CBP) shall assess, countervailing duties on all appropriate entries covered by this review. We intend to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

For the companies for which this review is rescinded with these preliminary results, Commerce will instruct CBP to assess countervailing duties on all appropriate entries at a rate equal to the cash deposit of estimated countervailing duties required at the time of entry, or withdrawal from warehouse, for consumption, during the period January 1, 2021, through December 31, 2021, in accordance with 19 CFR 351.212(c)(l)(i). Commerce intends to issue appropriate assessment instructions directly to CBP no later than 35 days after publication of this notice in the **Federal Register**.

Cash Deposit Requirements

Pursuant to section 751(a)(1) of the Act, upon issuance of the final results, Commerce intends to instruct CBP to collect cash deposits of estimated countervailing duties for each of the companies listed above on shipments of subject merchandise entered, or withdrawn from warehouse, for consumption on or after the date of publication of the final results of this administrative review, except where the rate calculated in the final results is zero or *de minimis*, no cash deposit will be required. For all non-reviewed firms, we will instruct CBP to continue to collect cash deposits of estimated countervailing duties at the most recent company-specific or all-others rate applicable to the company, as appropriate. These cash deposit instructions, when imposed, shall remain in effect until further notice.

Disclosure and Public Comment

We will disclose to parties to this proceeding the calculations performed in reaching the preliminary results within five days of the date of publication of these preliminary results. Interested parties may submit written comments (case briefs) within 30 days of publication of the preliminary results and rebuttal comments (rebuttal briefs) within seven days after the time limit for filing case briefs.[14] Pursuant to 19 CFR 351.309(d)(2), rebuttal briefs must be limited to issues raised in the case briefs.[15] Parties who submit arguments are requested to submit with the

[8] *See* Petitioners' Withdrawal of Review Requests. The petitioners also withdrew their request for review for three companies which were found to be cross-owned with Jiangsu Zhongji Lamination Materials Stock Co., Ltd. in a prior segment of this proceeding. These companies are: Anhui Maximum Aluminium Industries Company Ltd., Jiangsu Huafeng Aluminum Industry Co., Ltd. and Shantou Wanshun Package Material Stock Co., Ltd. *See* Petitioners' Withdrawal of Review Requests at 3–4. During the course of this review, we determined that Anhui Maximum Aluminium Industries Company Ltd. and Shantou Wanshun Package Material Stock Co., Ltd. changed their names to Anhui Zhongji Battery Foil Science & Technology Co., Ltd. (aka Anhui Zhongji Battery Foil Sci&Tech Co., Ltd.) and Shantou Wanshun New Material Group Co., Ltd. (f/k/a Shantou Wanshun Package Material Stock Co., Ltd.), respectively. Thus, these three companies are included in the ''Preliminary Results of Review'' section below under their updated company names, as applicable, and preliminarily determined to be cross-owned with Jiangsu Zhongji Lamination Materials Stock Co., Ltd.

[9] In the first administrative review of the *Order*, Commerce found the following companies to be cross-owned: Anhui Maximum Aluminium Industries Company Ltd.; Jiangsu Huafeng Aluminum Industry Co., Ltd.; Jiangsu Zhongji Lamination Materials Co., Ltd. (f/k/a Jiangsu Zhongji Lamination Materials Stock Co., Ltd.); Jiangsu Zhongji Lamination Materials Co., (HK) Ltd.; Shantou Wanshun Package Material Stock Co., Ltd.; and Anhui Maximum Aluminium Industries Company Ltd. The subsidy rate applies to all cross-owned companies. *See Certain Aluminum Foil from the People's Republic of China: Final Results of the Countervailing Duty Administrative Review; 2017-2018*, 86 FR 12171 (March 2, 2021). While the petitioners withdrew their review requests for Anhui Maximum Aluminium Industries Company Ltd., Jiangsu Huafeng Aluminum Industry Co., Ltd., and Shantou Wanshun Package Material Stock Co., Ltd., because these companies were previously found to be cross-owned with a company which is subject to this review, we preliminarily intend not to rescind the review with respect to these companies.

[10] This net countervailable *ad valorem* subsidy rate reflects an entered value adjustment (EVA). *See* Preliminary Decision Memorandum at 8–9.

[11] In the investigation, Commerce found the following companies to be cross-owned: Dingsheng Aluminum Industries (Hong Kong) Trading Co., Ltd.; Hangzhou DingCheng Aluminum Co., Ltd.; Hangzhou Dingsheng Import & Export Co. Ltd.; Hangzhou Dingsheng Industrial Group Co. Ltd.; Hangzhou Five Star Aluminium Co., Ltd.; Hangzhou Teemful Aluminum Co., Ltd.; Jiangsu Dingsheng New Materials Joint-Stock Co., Ltd.; Luoyang Longding Aluminium Co., Ltd.; and Walson (HK) Trading Co., Limited. The subsidy rate applies to all cross-owned companies. *See Order.*

[12] This reflects the net countervailable ad valorem subsidy rate without the EVA. *See* Preliminary Decision Memorandum at 8–9.

[13] This reflects the net countervailable ad valorem subsidy rate without the EVA. *See* Preliminary Decision Memorandum at 8–9.

[14] *See* 19 CFR 224(b).

[15] *See* 19 CFR 351.309(c)(1)(ii) and (d)(1); *see also Temporary Rule Modifying AD/CVD Service Requirements Due to COVID–19; Extension of Effective Period*, 85 FR 41363 (July 10, 2020) (*Temporary Rule*).

argument: (1) a statement of the issue; (2) a brief summary of the argument; and (3) a table of authorities.[16] Note that Commerce has modified certain of its requirements for serving documents containing business proprietary information, until further notice.[17]

Pursuant to 19 CFR 351.310(c), interested parties who wish to request a hearing must submit a written request to the Assistant Secretary for Enforcement and Compliance, U.S. Department of Commerce, within 30 days after the date of publication of this notice.[18] Requests should contain the party's name, address, and telephone number, the number of participants, whether any participant is a foreign national, and a list of the issues to be discussed. Issues addressed during the hearing will be limited to those raised in the briefs.[19] If a request for a hearing is made, Commerce will inform parties of the scheduled date of the hearing.[20] Parties should confirm by telephone the date, time, and location of the hearing two days before the scheduled date.

Parties are reminded that all briefs and hearing requests are to be filed electronically using ACCESS and received successfully in their entirety by 5:00 p.m. Eastern Time on the due date.

Unless the deadline is extended pursuant to section 751(a)(3)(A) of the Act, Commerce intends to issue the final results of this administrative review, including the results of our analysis of the issues raised by the parties in their comments, within 120 days after publication of these preliminary results.

Notification to Interested Parties

This administrative review and notice are in accordance with sections 751(a)(1) and 777(i)(1) of the Act and 19 CFR 351.213 and 351.221(b)(4).

Dated: April 27, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix I

List of Topics Discussed in the Preliminary Decision Memorandum

I. Summary
II. Background
III. Rescission of Administrative Review, in Part
IV. Non-Selected Companies Under Review
V. Scope of the Order
VI. Diversification of China's Economy
VII. Subsidies Valuation
VIII. Interest Rate Benchmarks, Discount Rates, and Benchmarks for Measuring the Adequacy of Remuneration
IX. Use of Facts Otherwise Available and Adverse Inferences
X. Analysis of Programs
XI. Recommendation

Appendix II

Companies Rescinded From Review

(1) Alcha International Holdings Limited;
(2) Baotou Alcha Aluminum Co., Ltd.
(3) Granges Aluminum (Shanghai) Co., Ltd.;
(4) Guangxi Baise Xinghe Aluminum Industry Co., Ltd.;
(5) Hunan Suntown Marketing Limited;
(6) Jiangyin Dolphin Pack Ltd. Co.;
(7) Shandong Yuanrui Metal Material Co., Ltd.;
(8) Shanghai Huafon Aluminium Corporation;
(9) SNTO International Trade Limited;
(10) Suntown Technology Group Corporation Limited;
(11) Xiamen Xiashun Aluminum Foil Co., Ltd.;
(12) Yantai Donghai Aluminum Co., Ltd.;
(13) Yantai Jintai International Trade Co., Ltd.;
(14) Yinbang Clad Material Co., Ltd.;
(15) Zhejiang Zhongjin Aluminum Industry Co., Ltd.

[FR Doc. 2023–09426 Filed 5–3–23; 8:45 am]

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[16] *See* 19 CFR 351.309(c)(2) and (d)(2).

[17] *See* Temporary Rule.

[18] *See* 19 CFR 351.310(c).

[19] *See* 19 CFR 351.310(c).

[20] *See* 19 CFR 351.310.

DEPARTMENT OF COMMERCE

International Trade Administration

[A–520–807]

Circular Welded Carbon-Quality Steel Pipe From the United Arab Emirates: Final Results of Antidumping Duty Administrative Review; 2020–2021

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) determines that the producers/exporters subject to this administrative review made sales of subject merchandise at prices less than normal value during the period of review (POR), December 1, 2020, through November 30, 2021.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Benjamin A. Luberda or Alice Maldonado, AD/CVD Operations, Office II, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–2185 or (202) 482–4682, respectively.

SUPPLEMENTARY INFORMATION:

Background

This review covers five producers/exporters of the subject merchandise. Commerce selected two mandatory respondents for individual examination: Ajmal Steel Tubes & Pipes Ind. L.L.C./Ajmal Steel Tubes & Pipes Ind. L.L.C.-Branch-1 (collectively, Ajmal)[1] and Universal Tube and Plastic Industries, Ltd./THL Tube and Pipe Industries LLC/KHK Scaffolding and Formwork LLC (collectively, Universal).[2] The producers/exporters not selected for individual examination are Conares Metal Supply Limited, TSI Metal Industries L.L.C.,[3] and K.D. Industries Inc.

On December 28, 2022, Commerce published the *Preliminary Results*.[4] A summary of the events that occurred since Commerce published the

[1] We collapsed Ajmal Steel Tubes & Pipes Ind. L.L.C. and Noble Steel Industries L.L.C. (Noble Steel) together in the final results of the 2016–2017 administrative review. *See Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Final Results of Antidumping Duty Administrative Review; 2016–2017,* 84 FR 44845 (August 27, 2019) (*CWP from the UAE 2016–2017 Final Results*). Because there is no information on the record of this administrative review that would lead us to revisit this determination, we continue to treat these companies as part of a single entity for the purposes of this administrative review. In the final results of the 2019–2020 administrative review, we found that Ajmal Steel Tubes & Pipes Ind., L.L.C.-Branch-1 is the successor-in-interest to Noble Steel. *See Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Final Results of Antidumping Duty Administrative Review; 2019–2020,* 87 FR 41111 (July 11, 2022) (*CWP from the UAE 2019–2020 Final Results*).

[2] Commerce previously determined that Universal is a single entity consisting of the following three producers/exporters of subject merchandise: Universal Tube and Plastic Industries, Ltd.; KHK Scaffolding and Formwork LLC; and Universal Tube and Pipe Industries LLC (UTP). *See Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Affirmative Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination,* 81 FR 36882 (June 8, 2016), and accompanying Preliminary Decision Memorandum (PDM), unchanged in *Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Final Determination of Sales at Less Than Fair Value,* 81 FR 75030 (October 28, 2016), and accompanying Issues and Decision Memorandum. Because there is no information on the record of this administrative review that would lead us to revisit this determination, we are continuing to treat these companies as part of a single entity for the purposes of this administrative review. Additionally, we previously determined that THL Tube and Pipe Industries LLC is the successor-in-interest to UTP. *See CWP from the UAE 2016–2017 Final Results.*

[3] In the final results of the 2019–2020 administrative review, we found that TSI Metal Industries L.L.C. is the successor-in-interest to Tiger Steel Industries L.L.C. *See CWP from the UAE 2019–2020 Final Results.*

[4] *See Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Preliminary Results of Antidumping Duty Administrative Review; 2020–2021,* 87 FR 79862 (December 28, 2022) (*Preliminary Results*), and accompanying PDM, corrected by the **Federal Register** in *Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates: Preliminary Results of Antidumping Duty Administrative Review; 2020–2021,* 88 FR 7404 (February 3, 2023).

Preliminary Results, as well as a full discussion of the issues raised by interested parties for these final results, may be found in the Issues and Decision Memorandum.[5] The Issues and Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov.* In addition, a complete version of the Issues and Decision Memorandum can be accessed directly at *https://access.trade.gov/public/FRNoticesListLayout.aspx.*

Commerce conducted this administrative review in accordance with section 751 of the Tariff Act of 1930, as amended (the Act).

Scope of the Order[6]

The merchandise subject to the *Order* is welded carbon-quality steel pipes and tube, of circular cross-section, with an outside diameter not more than nominal 16 inches (406.4 mm), regardless of wall thickness, surface finish, end finish, or industry specification, and generally known as standard pipe, fence pipe and tube, sprinkler pipe, or structural pipe (although subject product may also be referred to as mechanical tubing). The products subject to this *Order* are currently classifiable in Harmonized Tariff Schedule of the United States (HTSUS) statistical reporting numbers 7306.19.1010, 7306.19.1050, 7306.19.5110, 7306.19.5150, 7306.30.1000, 7306.30.5015, 7306.30.5020, 7306.30.5025, 7306.30.5032, 7306.30.5040, 7306.30.5055, 7306.30.5085, 7306.30.5090, 7306.50.1000, 7306.50.5030, 7306.50.5050, and 7306.50.5070. Although the HTSUS numbers are provided for convenience and for customs purposes, the written product description remains dispositive.[7]

Analysis of Comments Received

All issues raised by interested parties to this administrative review are addressed in the Issues and Decision Memorandum. For a list of issues raised by parties, *see* the appendix to this notice.

Changes Since the Preliminary Results

Based on a review of the record and comments received from interested parties regarding the *Preliminary Results,* we made certain changes to the preliminary weighted-average dumping margin calculations for Ajmal, Universal, and the non-examined companies.[8]

Rate for Non-Examined Companies

The Act and Commerce's regulations do not address the establishment of a weighted-average dumping margin to be applied to companies not selected for individual examination when Commerce limits its examination in an administrative review pursuant to section 777A(c)(2) of the Act. Generally, Commerce looks to section 735(c)(5) of the Act, which provides instructions for calculating the all-others rate in a less-than-fair-value (LTFV) investigation, for guidance when calculating the weighted-average dumping margin for companies which were not selected for individual examination in an administrative review. Under section 735(c)(5)(A) of the Act, the all-others rate is normally an amount equal to the weighted average of the estimated weighted-average dumping margins established for exporters and producers individually investigated, excluding rates that are zero, *de minimis* (*i.e.,* less than 0.5 percent), or determined entirely on the basis of facts available.

For the final results, Commerce calculated weighted-average dumping margins for Ajmal and Universal that are not zero, *de minimis,* or based entirely on facts otherwise available. Accordingly, Commerce has continued to calculate the rate for companies not selected for individual examination using a weighted average of the weighted-average dumping margins calculated for Ajmal and Universal, weighted by each respondent's publicly-ranged total U.S. sales value.[9]

Final Results of Review

We calculated the following weighted-average dumping margins for the companies listed below for the period December 1, 2020, through November 30, 2021:

Exporter and/or producer	Weighted-average dumping margin (percent)
Ajmal Steel Tubes & Pipes Ind. L.L.C./Ajmal Steel Tubes & Pipes Ind. L.L.C.-Branch-1	5.06
Universal Tube and Plastic Industries, Ltd./THL Tube and Pipe Industries LLC/KHK Scaffolding and Formwork LLC	2.63
Conares Metal Supply Limited	3.63
TSI Metal Industries L.L.C	3.63
K.D. Industries Inc	3.63

[5] *See* Memorandum, ''Issues and Decision Memorandum for the Final Results of the 2020–2021 Administrative Review of the Antidumping Duty Order on Circular Welded Carbon-Quality Steel Pipe from the United Arab Emirates,'' dated concurrently with, and hereby adopted by, this notice (Issues and Decision Memorandum).

[6] *See Circular Welded Carbon-Quality Steel Pipe from the Sultanate of Oman, Pakistan, and the United Arab Emirates: Amended Final Affirmative Antidumping Duty Determination and Antidumping Duty Orders,* 81 FR 91906 (December 19, 2016) (*Order*).

[7] For a complete description of the scope of the *Order, see* the Issues and Decision Memorandum.

[8] *See* the Issues and Decision Memorandum.

[9] When Commerce's individual examination of respondents is limited to two respondents, Commerce normally calculates: (A) a weighted average of the weighted-average dumping margins calculated for the individually-examined respondents; (B) a simple average of the weighted-average dumping margins calculated for the individually-examined respondents; and (C) a weighted average of the weighted-average dumping margins calculated for the individually-examined respondents using each company's publicly-ranged U.S. sales quantities of subject merchandise. Commerce then compares then compares (B) and (C) to (A) and selects either the (B) or (C) rate based on the rate closest to (A) as the most appropriate rate for companies not selected for individual examination, as using the (A) rate would result in the disclosure of business proprietary information. *See, e.g., Ball Bearings and Parts Thereof from France, Germany, Italy, Japan, and the United Kingdom: Final Results of Antidumping Duty Administrative Reviews, Final Results of Changed-Circumstances Review, and Revocation of an Order in Part,* 75 FR 53661, 53663 (September 1, 2010). In this review, Commerce based the rate for companies not selected for individual examination on the publicly-ranged sales data of the mandatory respondents. For an analysis of the data, *see* Memorandum, ''Calculation of the Non-Selected Companies Rate for the Final Results,'' dated concurrently with this notice.

Disclosure

We intend to disclose the calculations performed within five days of the date of publication of this notice to parties in this proceeding, in accordance with 19 CFR 351.224(b).

Assessment Rates

Pursuant to section 751(a)(2)(C) of the Act, and 19 CFR 351.212(b)(1), Commerce has determined, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries of subject merchandise in accordance with the final results of this review.

Pursuant to 19 CFR 351.212(b)(1), because Ajmal and Universal reported the entered value of their U.S. sales, we calculated importer-specific *ad valorem* duty assessment rates for antidumping duties based on the ratio of the total amount of dumping calculated for the examined sales to each importer to the total entered value of those sales. Where an importer-specific assessment rate is *de minimis* (*i.e.,* less than 0.5 percent), the entries by that importer will be liquidated without regard to antidumping duties.

Commerce's ''automatic assessment'' will apply to entries of subject merchandise during the POR produced or exported by Ajmal or Universal for which the company did not know that the merchandise they sold to the intermediary (*e.g.,* a reseller, trading company, or exporter) was destined for the United States. In such instances, we will instruct CBP to liquidate unreviewed entries at the all-others rate if there is no rate for the intermediate company(ies) involved in the transaction.[10]

For the companies that were not selected for individual review, the assessment rate for antidumping duties will be equal to the weighted-average dumping margin determined in these final results.

We intend to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

[10] For a full discussion of this practice, *see Antidumping and Countervailing Duty Proceedings: Assessment of Antidumping Duties,* 68 FR 23954 (May 6, 2003).

Cash Deposit Requirements

The following cash deposit requirements will be effective for all shipments of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the publication date of the final results of this administrative review, as provided by section 751(a)(2)(C) of the Act: (1) the cash deposit rate for each company listed above will be that established in the final results of this review, except if the rate is less than 0.50 percent and, therefore, *de minimis* within the meaning of 19 CFR 351.106(c)(1), in which case the cash deposit rate will be zero; (2) for previously investigated companies not subject to this review, the cash deposit will continue to be the company-specific rate published for the most recently completed segment of this proceeding; (3) if the exporter is not a firm covered in this review, or a previous segment, but the producer is, then the cash deposit rate will be the rate established for the most recent segment for the producer of the merchandise; and (4) the cash deposit rate for all other producers or exporters will continue to be 5.95 percent, the all-others rate established in the LTFV investigation.[11]

These cash deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

Administrative Protective Order

This notice serves as the only reminder to parties subject to an administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3), which continues to govern business proprietary information in this segment of the proceeding. Timely written notification of return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

[11] *See Circular Welded Carbon-Quality Steel Pipe from the Sultanate of Oman, Pakistan, and the United Arab Emirates: Amended Final Affirmative Antidumping Duty Determination and Antidumping Duty Orders,* 81 FR 91906, 91908 (December 19, 2016).

Notification to Interested Parties

We are issuing and publishing this notice in accordance with sections 751(a)(1) and 777(i) of the Act.

Dated: April 27, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Issues and Decision Memorandum

I. Summary
II. Background
III. Scope of the Order
IV. Changes From the *Preliminary Results*
V. Discussion of the Issues
  Comment 1: Differential Pricing Analysis
  Comment 2: Treatment of Section 232 Duties
  Comment 3: Selection of the Correct Universes of Sales for Ajmal for the Period of Review (POR)
  Comment 4: Calculation of Universal's Imputed Credit Expense for U.S. Sales
  Comment 5: Application of Partial Adverse Facts Available (AFA) for Universal's Reported Freight Revenue on U.S. Sales
VI. Recommendation

[FR Doc. 2023–09422 Filed 5–3–23; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[A–588–874]

Certain Hot-Rolled Steel Flat Products From Japan: Final Results of Antidumping Duty Administrative Review; 2020–2021

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) determines that Nippon Steel Corporation (NSC), producer and exporter of hot-rolled steel flat products (hot-rolled steel) from Japan, sold subject merchandise in the United States at prices below normal value during the period of review (POR) October 1, 2020, through September 30, 2021.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Jun Jack Zhao AD/CVD Operations, Office VII, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–1396.

SUPPLEMENTARY INFORMATION:

Background

On November 2, 2022, Commerce published the *Preliminary Results* of this review in the **Federal Register**.[1] We invited interested parties to comment on the *Preliminary Results.* Between December 2 and 9, 2022, Commerce received timely filed briefs and rebuttal briefs from NSC, Nucor (the petitioner), and Tokyo Steel Manufacturing Co., Ltd. (Tokyo Steel) and Optima Steel International, LLC.[2] On December 2, 2022, Commerce received hearing requests from NSC and Nucor.[3] On December 16, 2022 and February 10, 2023, NSC and Nucor each withdrew its hearing request, respectively.[4]

On February 13, 2023, we extended the deadline for the final results, in accordance with section 751(a)(3)(A) of the Tariff Act of 1930, as amended (the Act), and 19 CFR 351.213(h)(2).[5] The deadline for the final results of this review is April 28, 2023.

These final results cover two producers and/or exporters of subject merchandise.[6] Based on an analysis of the comments received, we made certain changes to the weighted-average dumping margins determined for NSC. The weighted-average dumping margins are listed in the ''Final Results of Review'' section, below. Commerce conducted this review in accordance with section 751(a) of the Act.

Scope of the Order [7]

The merchandise covered by the *Order* is certain hot-rolled steel flat products. For a complete description of the scope of the *Order, see* the Issues and Decision Memorandum.[8]

Analysis of Comments Received

We addressed all issues raised in the case and rebuttal briefs in the Issues and Decision Memorandum, which is hereby adopted with this notice. The issues are identified in Appendix I to this notice. The Issues and Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov.* In addition, a complete version of the Issues and Decision Memorandum can be accessed directly at *https://access.trade.gov/public/FRNoticesListLayout.aspx.*

Changes Since the Preliminary Results

Based on our review and analysis of the comments received from parties, we made certain changes to NSC's margin calculations. For a discussion of these changes, *see* the Issues and Decision Memorandum.

Rate for Non-Examined Companies

The statute and Commerce's regulations do not address the establishment of a rate to be applied to companies not selected for individual examination when Commerce limits its examination in an administrative review pursuant to section 777A(c)(2) of the Act. Generally, Commerce looks to section 735(c)(5) of the Act, which provides instructions for calculating the all-others rate in a market economy investigation, for guidance when calculating the rate for companies which were not selected for individual examination in an administrative review. Under section 735(c)(5)(A) of the Act, the all-others rate is normally ''an amount equal to the weighted-average of the estimated weighted-average dumping margins established for exporters and producers individually investigated, excluding any zero or *de minimis* margins, and any margins determined entirely {on the basis of facts available}.''

In this review, we have calculated a weighted-average dumping margin for NSC that is not zero, *de minimis,* or determined entirely on the basis of facts available. Accordingly, Commerce has assigned to the non-examined company, Tokyo Steel, a margin of 7.72 percent, which is NSC's calculated weighted-average dumping margin.

Final Results of Review

We are assigning the following weighted-average dumping margins to the firms listed below for the period October 1, 2020, through September 30, 2021:

Exporter/producer	Weighted-average dumping margin (percent)
Nippon Steel Corporation/Nippon Steel Nisshin Co., Ltd./Nippon Steel Trading Corporation [9]	7.72
Tokyo Steel Manufacturing Co., Ltd.	7.72

Assessment

Consistent with its recent notice,[10] Commerce intends to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

Where the respondent reported reliable entered values, we calculated importer—(or customer-) specific *ad valorem* rates by aggregating the dumping margins calculated for all U.S. sales to each importer (or customer) and dividing this amount by the total entered value of the sales to each importer (or customer).[11] Where Commerce calculated a weighted-average dumping margin by dividing the total amount of dumping for reviewed

[1] *See Certain Hot-Rolled Steel Flat Products from Japan: Preliminary Results of Antidumping Duty Administrative; 2020–2021;* 87 FR 66130 (November 2, 2022) (*Preliminary Results*), and accompanying Preliminary Decision Memorandum (PDM).

[2] *See* NSC's Letter, ''NSC's Case Brief,'' dated December 2, 2022; Nucor's Letter, ''Nucor's Case Brief,'' dated December 2, 2022; Tokyo Steel's Letter, ''Tokyo Steel Manufacturing Co., Ltd. and Optima Steel International LLC's Case Brief,'' dated December 2, 2022; NSC's Letter, ''NSC's Rebuttal Brief,'' dated December 9, 2022; Nucor's Letter, ''Nucor's Rebuttal Brief,'' dated December 9, 2022.

[3] *See* NSC's Letter, ''NSC's Hearing Request,'' dated December 2, 2022; Nucor's Letter, ''Request for Hearing,'' dated December 2, 2022.

[4] *See* NSC's Letter, ''Withdrawl of NSC's Hearing Request,'' dated December 16, 2022; Nucor's Letter, ''Withdrawal of Request for Hearing,'' dated February 10, 2023.

[5] *See* Memorandum, ''Extension of Deadline for Final Results of Antidumping Duty Administrative Review; 2020–2021,'' dated February 13, 2023.

[6] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 86 FR 67685 (November 29, 2021).

[7] *See Certain Hot-Rolled Steel Flat Products from Australia, Brazil, Japan, the Republic of Korea, the Netherlands, the Republic of Turkey, and the United Kingdom: Amended Final Affirmative Antidumping Determinations for Australia, the Republic of Korea, and the Republic of Turkey and Antidumping Duty Orders,* 81 FR 67962 (October 3, 2016) (*Order*).

[8] *See* Memorandum, ''Issues and Decision Memorandum for the Final Results of the Antidumping Duty Administrative Review: Certain Hot-Rolled Steel Flat Products from Japan; 2020–2021,'' dated concurrently with, and hereby adopted by, this notice (Issues and Decision Memorandum).

[9] Commerce found in a changed circumstances review that NSC, Nippon Steel Nisshin Co., Ltd., and Nippon Steel Trading Corporation are affiliated companies that should be treated as a single entity and as the successor-in-interest to Nippon Steel & Sumitomo Metal Corporation, Nisshin Steel Co., Ltd., and Nippon Steel & Sumikin Bussan Corporation, respectively. *See Certain Hot-Rolled Steel Flat Products from Japan: Notice of Final Results of Antidumping Duty Changed Circumstances Review,* 84 FR 46713 (September 5, 2019). Because there is no information on the record of this administrative review that would lead us to revisit this determination, we are continuing to treat these companies as part of a single entity for the purposes of this administrative review.

[10] *See Notice of Discontinuation of Policy to Issue Liquidation Instructions After 15 Days in Applicable Antidumping and Countervailing Duly Administrative Proceedings,* 86 FR 3995 (January 15, 2021).

[11] *See* 19 CFR 351.212(b)(1).

sales to that party by the total sales quantity associated with those transactions, Commerce will direct CBP to assess importer- (or customer-) specific assessment rates based on the resulting per-unit rates.[12] Where an importer- (or customer-) specific *ad valorem* or per-unit rate is greater than *de minimis* (*i.e.,* 0.50 percent), Commerce will instruct CBP to collect the appropriate duties at the time of liquidation.[13] Where an importer- (or customer-) specific *ad valorem* or per-unit rate is zero or *de minimis,* Commerce will instruct CBP to liquidate appropriate entries without regard to antidumping duties.[14]

For the company which were not selected for individual review, we will assign an assessment rate based on the methodology described in the ''Rates for Non-Examined Companies'' section, above.

Consistent with Commerce's assessment practice, for entries of subject merchandise during the POR produced by NSC, or the non-examined companies for which the producer did not know that its merchandise was destined for the United States, we will instruct CBP to liquidate unreviewed entries at the all-others rate if there is no rate for the intermediate company(ies) involved in the transaction.[15]

Cash Deposit Requirements

The following cash deposit requirements will be effective for all shipments of subject merchandise entered, or withdrawn from warehouse, for consumption on or after the publication date of the final results of this administrative review, as provided for by section 751(a)(2)(C) of the Act: (1) the cash deposit rates for the companies listed in these final results will be equal to the weighted-average dumping margins established in the final results of this review; (2) for merchandise exported by producers or exporters not covered in this review but covered in a prior segment of this proceeding, the cash deposit rate will continue to be the company-specific rate published for the most recently completed segment in which the company was reviewed; (3) if the exporter is not a firm covered in this review or the original less-than-fair-value (LTFV) investigation, but the producer is, the cash deposit rate will be the rate established for the most recently completed segment of this proceeding for the producer of the subject merchandise; and (4) the cash deposit rate for all other producers or exporters will continue to be 5.58 percent,[16] the all-others rate established in the LTFV investigation. These cash deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this POR. Failure to comply with this requirement could result in the presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

Administrative Protective Order

This notice also serves as a reminder to parties subject to administrative protective order (APO) of their responsibility concerning the destruction of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of the return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and terms of an APO is a sanctionable violation.

Notification to Interested Parties

We are issuing and publishing these results in accordance with sections 751(a)(1) and 777(i)(1) of the Act and 19 CFR 351.213(h) and 351.221(b)(5) of Commerce's regulations.

Dated: April 28, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix I

List of Topics Discussed in the Issues and Decision Memorandum

I. Summary
II. Background
III. Scope of the Order
IV. Changes Since the Preliminary Results
V. Discussion of the Issues
Comment 1: Whether Commerce Should Deduct Section 232 Duties From U.S. Price
Comment 2: Whether Commerce Erred in Applying its Differential Pricing Analysis
Comment 3: Whether Commerce Should Include Certain U.S. and Home Market Sales in its Calculation of NSC's Dumping Margin
Comment 4: Whether Commerce Should Include Certain U.S. Revenue Fields for Certain Extra Services in Calculating NSC's Dumping Margin
Comment 5: Whether NSC's Fees Paid to Unaffiliated Trading Companies Should Be Treated as Commissions
Comment 6: Whether Commerce Should Calculate a Company Specific AD Assessment Rate for Tokyo Steel
VI. Recommendation

[FR Doc. 2023–09508 Filed 5–3–23; 8:45 am]

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[12] *Id.*

[13] *Id.*

[14] *See* 19 CFR 351.106(c)(2).

[15] For a full discussion of this practice, *see Antidumping and Countervailing Duty Proceedings: Assessment of Antidumping Duties,* 68 FR 23954 (May 6, 2003).

[16] *See Certain Hot-Rolled Steel Flat Products from Japan: Final Determination of Sales at Less Than Fair Value and Final Affirmative Determination of Critical Circumstances,* 81 FR 53409 (August 12, 2016).

DEPARTMENT OF COMMERCE

International Trade Administration

[A–533–887]

Carbon and Alloy Steel Threaded Rod From India: Preliminary Results of Antidumping Duty Administrative Review, 2021–2022

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) preliminarily determines that carbon and alloy steel threaded rod (steel threaded rod) from India was sold in the United States at below normal value. The period of review (POR) is April 1, 2021, through March 31, 2022. Interested parties are invited to comment on these preliminary results.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Nicolas Mayora or Samuel Frost, AD/CVD Operations, Office V, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–3053 or (202) 482–8180, respectively.

SUPPLEMENTARY INFORMATION:

Background

On April 9, 2020, Commerce published in the **Federal Register** an antidumping duty order on steel threaded rod from India.[1] On April 1, 2022, we published in the **Federal Register** a notice of opportunity to request an administrative review of the *Order.*[2] On June 9, 2022, based on

[1] *See Carbon and Alloy Steel Threaded Rod from India: Amended Final Determination of Sales at Less Than Fair Value and Antidumping Duty Order,* 85 FR 19925 (April 9, 2020) (*Order*).

[2] *See Antidumping and Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity to Request Administrative Review and Join Annual Inquiry Service List,* 87 FR 19075 (April 1, 2022).

timely requests for an administrative review, Commerce initiated the administrative review of 114 companies.[3] On August 2, 2022, Commerce selected Kanika and RKF as mandatory respondents for individual examination.[4]

On December 16, 2022, Commerce extended the time limit for completing the preliminary results of this review until April 28, 2023.[5] For a complete description of the events between the initiation of this review and these preliminary results, *see* the Preliminary Decision Memorandum.[6]

Scope of the Order

The merchandise covered by the scope of this *Order* is carbon and alloy steel threaded rod. A complete description of the scope of the *Order* is contained in the Preliminary Decision Memorandum.[7]

Methodology

Commerce is conducting this review in accordance with section 751(a) of the Tariff Act of 1930, as amended (the Act). We calculated export price in accordance with section 772(a) of the Act. Normal value (NV) is calculated in accordance with section 773 of the Act. For a full description of the methodology underlying these preliminary results, *see* the Preliminary Decision Memorandum. *See* appendix I for a complete list of topics discussed in the Preliminary Decision Memorandum. The Preliminary Decision Memorandum is a public document and is made available to the public via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *http://access.trade.gov.* In addition, a complete version of the Preliminary Decision Memorandum is available at *https://access.trade.gov/public/FRNoticesListLayout.aspx.*

Rate for Non-Examined Companies

The Act and Commerce's regulations do not address the establishment of a rate to be applied to companies not selected for examination when Commerce limits its examination in an administrative review pursuant to section 777A(c)(2) of the Act. Generally, Commerce looks to section 735(c)(5) of the Act, which provides instructions for calculating the all-others rate in a market economy investigation, for guidance when calculating the rate for companies which were not selected for individual examination in an administrative review. Under section 735(c)(5)(A) of the Act, the all-others rate is normally ''an amount equal to the weighted average of the estimated weighted-average dumping margins established for exporters and producers individually investigated, excluding any zero and *de minimis* margins, and any margins determined entirely {on the basis of facts available}.''

Where the dumping margin for individually examined respondents are all zero, *de minimis,* or based entirely on facts available, section 735(c)(5)(B) of the Act provides that Commerce may use ''any reasonable method to establish the estimated all-others rate for exporters and producers not individually investigated, including averaging the estimated weighted average dumping margins determined for the exporters and producers individually investigated.''

In this review, we have preliminarily calculated a weighted-average dumping margin of 2.37 percent for RKF and zero percent for Kanika. Therefore, in accordance with section 735(c)(5)(A) of the Act, we are preliminarily applying RKF's weighted average dumping margin of 2.37 percent to the non-examined companies (*see* Appendix II for a full list of these companies), because this is the only rate that is not zero, *de minimis,* or based entirely on facts available.

Preliminary Results of the Review

Commerce preliminarily determines that the following estimated weighted-average dumping margins exist during the period April 1, 2021, through March 31, 2022:

Exporter/producer	Estimated weighted-average dumping margin (percent)
Kanika Exports	0.00
R K Fasteners (India)	2.37
Non-Examined Companies[8]	2.37

Disclosure and Public Comment

Commerce intends to disclose to interested parties the calculations performed for these preliminary results within five days of the date of publication of this notice in accordance with 19 CFR 351.224(b). Pursuant to 19 CFR 351.309(c), interested parties may submit case briefs no later than 30 days after the date of publication of this notice. Rebuttal briefs, limited to issues raised in the case briefs, may be filed no later than seven days after the date for filing case briefs.[9] Commerce modified certain of its requirements for servicing documents containing business proprietary information until further notice.[10] Parties who submit case briefs or rebuttal briefs in this proceeding are encouraged to submit with each argument: (1) a statement of the issue; (2) a brief summary of the argument; and (3) a table of authorities.[11] Note that Commerce has temporarily modified certain portions of its requirements for serving documents containing business proprietary information, until further notice.[12]

Pursuant to 19 CFR 351.310(c), interested parties who wish to request a hearing, limited to issues raised in the case and rebuttal briefs, must submit a written request to the Assistant Secretary for Enforcement and Compliance, U.S. Department of Commerce, filed electronically via ACCESS within 30 days of the date of publication of this notice. Requests should contain: (1) the party's name, address, and telephone number; (2) the number of participants; and (3) a list of the issues to be discussed. An electronically-filed hearing request must be received successfully in its entirety by ACCESS by 5:00 p.m. Eastern Time on the established deadline.

Commerce intends to issue the final results of this administrative review, including the results of its analysis of issues raised in the case briefs, no later than 120 days after the date of publication of this notice, pursuant to section 751(a)(3)(A) of the Act, unless otherwise extended.

Assessment Rates

Upon issuance of the final results of this administrative review, Commerce shall determine, and U.S. Customs and Border Protection (CBP) shall assess,

[3] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 87 FR 35165 (June 9, 2022) (*Initiation Notice*), as corrected by *Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 87 FR 48459 (August 9, 2022).

[4] *See* Memorandum, ''Respondent Selection,'' dated August 2, 2022.

[5] *See* Memorandum, ''Extension of Deadline for Preliminary Results of Antidumping Duty Administrative Review; 2021–2022,'' dated December 16, 2022.

[6] *See* Memorandum, ''Decision Memorandum for the Preliminary Results of the Antidumping Duty Administrative Review of Carbon and Alloy Steel Threaded Rod from India; 2021–2022,'' dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

[7] *Id.* at ''Scope of the *Order.*''

[8] *See* appendix II for a list of these companies.

[9] *See* 19 CFR 351.309(d).

[10] *See Temporary Rule Modifying AD/CVD Service Requirements Due to COVID–19; Extension Effective Period,* 85 FR 41363 (July 10, 2020) (*Temporary Rule*).

[11] *See* 19 CFR 351.309(c) and (d); *see also* 19 CFR 351.303 (for general filing requirements).

[12] *See Temporary Rule.*

antidumping duties on all appropriate entries covered by this review.[13] If a respondent's weighted-average dumping margin is not zero or *de minimis* (*i.e.,* less than 0.5 percent) in the final results of this review, we will calculate importer-specific assessment rates based on the ratio of the total amount of dumping calculated for the importer's examined sales to the total entered value of those same sales in accordance with 19 CFR 351.212(b)(1). We intend to instruct CBP to assess antidumping duties on all appropriate entries covered by this review when the importer-specific assessment rate calculated in the final results of this review is not zero or *de minimis.* Where an importer-specific assessment rate is zero or *de minimis* in the final results of this review, we intend to instruct CBP to liquidate the appropriate entries without regard to antidumping duties in accordance with 19 CFR 351.106(c)(2). The final results of this review shall be the basis for the assessment of antidumping duties on entries of merchandise covered by this review and for future deposits of estimated duties, where applicable.[14]

In accordance with Commerce's ''automatic assessment'' practice, for entries of subject merchandise during the POR produced by Kanika or RKF for which these companies did not know that the merchandise was destined for the United States, we will instruct CBP to liquidate those entries at the all-others rate established in the original less-than-fair-value (LTFV) investigation,[15] if there is no rate for the intermediate company(ies) involved in the transaction.[16] For the companies which were not selected for individual review, we will assign an assessment rate based on the review-specific average rate, calculated as noted in the ''Preliminary Results of Review'' section above.

We intend to issue instructions to CBP no earlier than 35 days after the publication date of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

[13] *See* 19 CFR 351.212(b)(1).

[14] *See* section 751(a)(2)(C) of the Act.

[15] *See Order,* 85 FR at 19926.

[16] For a full description of this practice, *see Antidumping and Countervailing Duty Proceedings: Assessment of Antidumping Duties,* 68 FR 23954 (May 6, 2003).

Cash Deposit Requirements

The following cash deposit requirements will be effective upon publication in the **Federal Register** of the notice of final results of this administrative review for all shipments of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the date of publication, as provided by section 751(a)(2)(C) of the Act: (1) the cash deposit rate for the companies listed in the final results of this review will be equal to the weighted-average dumping margin established in the final results of this administrative review; (2) for merchandise exported by producers or exporters not covered in this review but covered in a prior segment of the proceeding, the cash deposit rate will continue to be the company-specific rate published for the most recently-completed segment of this proceeding in which they were reviewed; (3) if the exporter is not a firm covered in this review, or the original investigation, but the producer is, then the cash deposit rate will be the rate established for the most recently-completed segment of this proceeding for the producer of the merchandise; (4) the cash deposit rate for all other producers or exporters will continue to be 0.00 percent, the all-others rate established in the LTFV investigation as adjusted for the export-subsidy rate in the companion countervailing duty investigation.[17] The cash deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice serves as a preliminary reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during the POR. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

Notification to Interested Parties

Commerce is issuing and publishing these results in accordance with sections 751(a)(1) and 777(i)(1) of the Act and 19 CFR 351.221(b)(4).

[17] *See Order,* 85 FR at 19926.

Dated: April 27, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix I

List of Topics Discussed in the Preliminary Decision Memorandum

I. Summary
II. Background
III. Scope of the *Order*
IV. Discussion of the Methodology
V. Currency Conversion
VI. Recommendation

Appendix II

List of Companies Not Individually Examined

1. A H Enterprises
2. Aadi Shree Fastener Industries
3. Aanjaney Micro Engy Pvt., Ltd.
4. Accurate Steel Forgings (I) Ltd.
5. Alps Industries Ltd.
6. Apex Thermocon Pvt., Ltd.
7. Ash Hammer Union
8. Astrotech Steels Pvt., Ltd.
9. Atlantic Container Line Pvt., Ltd.
10. Ats Exp. 07
11. Atz Shipping Trade & Transport Pvt.
12. BA Metal Processing
13. Babu Exports
14. Bee Dee Cycle Industries
15. Bhansali Inc.
16. Boston Exp. & Engineering Co.
17. C.H.Robinson International (India)
18. C.P.World Lines Pvt., Ltd.
19. Century Distribution Systems Inc.
20. Charu Enterprises
21. Chirag International
22. Daksh Fasteners
23. Dedicated Imp. & Exp. Co.
24. Dhiraj Alloy & Stainless Steel
25. Dsv Air and Sea Pvt., Ltd.
26. Eastman Industries Ltd.
27. Eos Precision
28. ESL Steel Ltd.
29. Everest Exp.
30. Everest Industrial Corporation
31. Farmparts Company
32. Fence Fixings
33. Fine Thread Form Industries
34. Galorekart Marketplace Pvt., Ltd.
35. Ganga Acrowools Ltd.
36. Ganpati Fastners Pvt., Ltd.
37. Gateway Engineering Solution
38. GDPA Fasteners
39. Gee Pee Overseas
40. Geodis India Pvt., Ltd. (Indel)
41. Goodgood Manufacturers
42. Idea Fasteners Pvt., Ltd.
43. Jindal Steel And Power Ltd.
44. JSW Steel Ltd.
45. Kanchan Trading Co.
46. Kanhaiya Lal Tandoor (P) Ltd.
47. Kapson India
48. Kapurthala Industrial Corporation
49. Karna International
50. Kei Industries Ltd.
51. King Exports
52. Kintetsu World Express In
53. Kova Fasteners Pvt., Ltd.
54. Linit Exp. Pvt., Ltd.
55. Mahajan Brothers
56. Maharaja International
57. Mangal Steel Enterprises Ltd.

58. Maya Enterprises
59. Meenakshi India, Ltd.
60. Metalink
61. MKA Engineers And Exporters Pvt., Ltd.
62. National Cutting Tools
63. Nishant Steel Industries
64. NJ Sourcing
65. Noahs Ark International Exp.
66. Nuovo Fastenings Pvt., Ltd.
67. Oia Global India Pvt., Ltd.
68. Otsusa India Pvt., Ltd.
69. Paloma Turning Co. Pvt., Ltd.
70. Patton International Ltd.
71. Perfect Tools & Forgings
72. Permali Wallace Pvt., Ltd.
73. Polycab India Ltd.
74. Pommada Hindustan Pvt., Ltd.
75. Poona Forge Pvt., Ltd.
76. Psl Pipe & Fittings Co.
77. R A Exp.
78. Raajratna Ventures Ltd.
79. Raashika Industries Pvt., Ltd.
80. Rajpan Group
81. Rambal Ltd.
82. Randack Fasteners India Pvt., Ltd.
83. Ratnveer Metals Ltd.
84. Rimjhim Ispat Ltd.
85. Rods & Fixing Fasteners
86. S K Overseas
87. S.M Forgings & Engineering
88. Sandip Brass Industries
89. Sandiya Exp. Pvt., Ltd.
90. Sansera Engineering Pvt., Ltd.
91. Shree Luxmi Fasteners
92. Silverline Metal Engineering Pvt. Ltd.
93. Singhania International Ltd.
94. Sri Satya Sai Enterprises
95. Steampulse Global Llp
96. Steel Authority Of India Ltd.
97. Suchi Fasteners Pvt., Ltd.
98. Supercon Metals Pvt., Ltd.
99. Tekstar Pvt., Ltd.
100. The Technocrats Co.
101. Tijiya Exp. Pvt., Ltd.
102. Tijiya Steel Pvt., Ltd.
103. Tong Heer Fasteners
104. Trans Tool Pvt., Ltd.
105. Universal Engineering and Fabricat
106. V.J Industries Pvt., Ltd.
107. Vidushi Wires Pvt., Ltd.
108. Vrl Automation
109. VV Marine Pvt., Ltd.
110. Yogendra International
111. Zenith Steel Pipes And Industries L
112. Zenith Precision Pvt., Ltd.

[FR Doc. 2023–09424 Filed 5–3–23; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[C–821–825]

Phosphate Fertilizers From the Russian Federation: Preliminary Results and Partial Rescission of the Countervailing Duty Administrative Review; 2020–2021

AGENCY: Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) preliminarily determines that countervailable subsidies are being provided to producers and exporters of phosphate fertilizers from the Russian Federation (Russia). The period of review (POR) is November 30, 2020, through December 31, 2021.

DATES: Applicable May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Shane Subler or William Horn, AD/CVD Operations, Office VIII, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–6241 and (202) 482–4868, respectively.

SUPPLEMENTARY INFORMATION:

Background

On June 9, 2022, Commerce published a notice of initiation of an administrative review of the countervailing duty (CVD) order on phosphate fertilizers from Russia.[1] On November 30, 2022, Commerce extended the deadline for the preliminary results of this review until April 28, 2023.[2]

For a complete description of the events that followed the initiation of this review, *see* the Preliminary Decision Memorandum.[3] A list of topics discussed in the Preliminary Decision Memorandum is included as the appendix to this notice. The Preliminary Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov.* In addition, a complete version of the Preliminary Decision Memorandum can be accessed directly at *https://access.trade.gov/public/FRNoticesListLayout.aspx/.*

Scope of the Order

The merchandise covered by the order is phosphate fertilizers. For a complete description of the scope of the order, *see* the Preliminary Decision Memorandum.

Rescission of Administrative Review, in Part

On July 22, 2022, Commerce notified interested parties that we intended to rescind this administrative review with respect to Industrial Group Phosphorite LLC because it did not have reviewable entries of subject merchandise during the POR for which liquidation is suspended.[4] No parties commented on the notification of intent to rescind the review, in part. Therefore, we determine that there were no reviewable suspended entries of subject merchandise during the POR for Industrial Group Phosphorite LLC. As a result of our finding, we are rescinding this review, in part, pursuant to 19 CFR 351.213(d)(3) with respect to Industrial Group Phosphorite LLC. For additional information regarding this determination, *see* the Preliminary Decision Memorandum.

Methodology

Commerce is conducting this review in accordance with section 751(a)(l)(A) of the Tariff Act of 1930, as amended (the Act). For each of the subsidy programs found to be countervailable, we preliminarily determine that there is a subsidy, *i.e.,* a financial contribution from an authority that gives rise to a benefit to the recipient, and that the subsidy is specific.[5] For a full description of the methodology underlying our conclusions, *see* the Preliminary Decision Memorandum.

Preliminary Results of Review

As a result of this review, we preliminarily determine the following net countervailable subsidy rate for the period November 30, 2020, through December 31, 2021:

[1] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 87 FR 35165 (June 9, 2022).

[2] *See* Memorandum, ''Extension of Deadline for the Preliminary Results of the 2020–2021 Countervailing Duty Administrative Review,'' dated November 30, 2022.

[3] *See* Memorandum, ''Decision Memorandum for the Preliminary Results and Partial Rescission of the Countervailing Duty Administrative Review; 2020–2021: Phosphate Fertilizers from the Russian Federation,'' dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

[4] *See* Memorandum, ''Notice of Intent to Rescind Review, In Part,'' dated July 22, 2022.

[5] *See* sections 771(5)(B) and (D) of the Act regarding financial contribution; section 771(5)(E) of the Act regarding benefit; and section 771(5A) of the Act regarding specificity.

Producer/exporter	Subsidy rate (percent *ad valorem*)
Joint Stock Company Apatit[6]	53.29

Disclosure and Public Comment

We intend to disclose to interested parties the calculations performed for these preliminary results within five days of the date of publication of this notice in accordance with 19 CFR 351.224(b). Interested parties may submit case briefs no later than 30 days after the date of publication of these preliminary results of review.[7] Rebuttals to case briefs may be filed no later than seven days after the case briefs are filed, and all rebuttal comments must be limited to comments raised in the case briefs.[8] Note that Commerce has temporarily modified certain of its requirements for serving documents containing business proprietary information, until further notice.[9] Pursuant to 19 CFR 351.309(c)(2) and (d)(2), parties who submit case briefs or rebuttal briefs in this review are encouraged to submit with each argument: (1) a statement of the issue; (2) a brief summary of the argument; and (3) a table of authorities.

Pursuant to 19 CFR 351.310(c), interested parties who wish to request a hearing, limited to issues raised in the case and rebuttal briefs, must submit a written request to the Assistant Secretary for Enforcement and Compliance, U.S. Department of Commerce, within 30 days after the date of publication of this notice. Requests should contain the party's name, address, and telephone number, the number of participants, whether any participant is a foreign national, and a list of the issues to be discussed. If a request for a hearing is made, Commerce intends to hold the hearing at a time and date to be determined. Parties should confirm by telephone the date, time, and location of the hearing two days before the scheduled date.

Unless the deadline is extended, we intend to issue the final results of this administrative review, which will include the results of our analysis of the issues raised in the case briefs, within 120 days of publication of these preliminary results in the **Federal Register**, pursuant to section 751(a)(3)(A) of the Act and 19 CFR 351.213(h).

Assessment Rate

In accordance with 19 CFR 351.221(b)(4)(i), we preliminarily assigned a subsidy rate in the amount shown above for the producer/exporter shown above. Upon completion of the administrative review, consistent with section 751(a)(1) of the Act and 19 CFR 351.212(b)(2), Commerce shall determine, and U.S. Customs and Border Protection (CBP) shall assess, countervailing duties on all appropriate entries covered by this review.

For the company for which this review is rescinded, we will instruct CBP to assess countervailing duties on all appropriate entries at a rate equal to the cash deposit of estimated countervailing duties required at the time of entry, or withdrawal from warehouse, for consumption, during the period November 30, 2020, through December 31, 2021, in accordance with 19 CFR 351.212(c)(l)(i). We intend to issue assessment instructions to CBP no earlier than 35 days after the date of publication of this notice in the **Federal Register**.

For the company remaining in the review, we intend to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

Cash Deposit Requirements

In accordance with section 751(a)(1) of the Act, Commerce intends, upon publication of the final results, to instruct CBP to collect cash deposits of estimated countervailing duties in the amount shown for the company (and its cross-owned affiliates) listed above on shipments of subject merchandise entered, or withdrawn from warehouse, for consumption on or after the date of publication of the final results of this administrative review. For all non-reviewed firms, we will instruct CBP to continue to collect cash deposits at the most recent company-specific or all others rate applicable to the company. These cash deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Interested Parties

These preliminary results are issued and published pursuant to sections 751(a)(1) and 777(i)(1) of the Act, and 19 CFR 351.221(b)(4).

Dated: April 27, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Preliminary Decision Memorandum

I. Summary
II. Background
III. Partial Rescission of Review
IV. Scope of the *Order*
V. Subsidies Valuation Information
VI. Interest Rate Benchmarks and Benchmarks for Measuring the Adequacy of Remuneration
VII. Use of Facts Otherwise Available and Application of Adverse Inferences
VIII. Analysis of Programs
IX. Recommendation

[FR Doc. 2023–09427 Filed 5–3–23; 8:45 am]

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[6] As discussed in the Preliminary Decision Memorandum, Commerce preliminarily finds the following companies to be cross-owned with JSC Apatit: PhosAgro Public Joint Stock Company; Limited Liability Company PhosAgro-Region; Limited Liability Company PhosAgro-Belgorod; Limited Liability Company PhosAgro-Don; Limited Liability Company PhosAgro-Kuban; Limited Liability Company PhosAgro-Lipetsk; Limited Liability Company PhosAgro-Kursk; Limited Liability Company PhosAgro-Orel; Limited Liability Company PhosAgro-Stavropol; Limited Liability Company PhosAgro-Volga; Limited Liability Company PhosAgro-SeveroZapad; Limited Liability Company PhosAgro-Tambov; and Limited Liability Company PhosAgro-Sibir.

[7] *See* 19 CFR 351.309(c).

[8] *See* 19 CFR 351.309(d).

[9] *See Temporary Rule Modifying AD/CVD Service Requirements Due to COVID–19; Extension of Effective Period,* 85 FR 41363 (July 10, 2020).

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Request for Nominations for Members To Serve on National Institute of Standards and Technology and National Technical Information Service Federal Advisory Committees

AGENCY: National Institute of Standards and Technology, Department of Commerce.

ACTION: Notice.

SUMMARY: The National Institute of Standards and Technology (NIST or Institute) and the National Technical Information Service (NTIS) invite and request nomination of individuals for appointment to eleven existing Federal Advisory Committees (Committees): Advisory Committee on Earthquake Hazards Reduction; Board of Overseers of the Malcolm Baldrige National Quality Award; Industrial Advisory Committee; Information Security and Privacy Advisory Board; Internet of Things Advisory Board; Judges Panel of the Malcolm Baldrige National Quality Award; Manufacturing Extension Partnership Advisory Board; National Artificial Intelligence Advisory Committee; National Construction Safety Team Advisory Committee; National Technical Information Service Advisory Board; and Visiting Committee on Advanced Technology. NIST and

NTIS will consider nominations received in response to this notice for appointment to the Committees, in addition to nominations already received. Registered Federal lobbyists may not serve on NIST or NTIS Federal Advisory Committees in an individual capacity.

DATES: Nominations for all Committees will be accepted on an ongoing basis and will be considered as and when vacancies arise.

ADDRESSES: See below.

SUPPLEMENTARY INFORMATION:

Advisory Committee on Earthquake Hazards Reduction (ACEHR)

Address: Please submit nominations to Tina Faecke via email at *tina.faecke@nist.gov.* Nominations may also be mailed to Tina Faecke, Designated Federal Officer, National Earthquake Hazards Reduction Program, NIST, 100 Bureau Drive, Mail Stop 8604, Gaithersburg, MD 20899–8604. Additional information regarding the ACEHR, including its charter and current members may be found on its electronic home page at *https://nehrp.gov/committees/index.htm.*

Contact Information: John ''Jay'' Harris, Acting Director, National Earthquake Hazards Reduction Program, NIST, 100 Bureau Drive, Mail Stop 8604, Gaithersburg, MD 20899–8604, telephone 301–975–6538 or via email at *john.harris@nist.gov.*

Committee Information

The Advisory Committee on Earthquake Hazards Reduction (Committee) was established in accordance with the National Earthquake Hazards Reduction Program Reauthorization Act of 2004, Public Law 108–360 (42 U.S.C. 7704(a)(5)) and the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

Objectives and Duties

1. The Committee will act in the public interest to assess trends and developments in the science and engineering of earthquake hazards reduction; effectiveness of the National Earthquake Hazards Reduction Program (Program) in carrying out the activities under section (a)(2) of the Earthquake Hazards Reduction Act of 1977, as amended (42 U.S.C. 7704(a)(2)); the need to revise the Program; and the management, coordination, implementation, and activities of the Program.

2. The Committee will function solely as an advisory body, in accordance with the provisions of the Federal Advisory Committee Act.

3. The Committee shall report to the Director of NIST.

4. The Committee shall report to the Director of NIST at least once every two years on its findings of the assessments and its recommendations for ways to improve the Program. In developing recommendations, the Committee shall consider the recommendations of the United States Geological Survey (USGS) Scientific Earthquake Studies Advisory Committee (SESAC).

Membership

1. The Committee shall consist of not fewer than 11, nor more than 17 members. Members shall reflect the wide diversity of technical disciplines, competencies, and communities involved in earthquake hazards reduction. Members shall be selected on the basis of established records of distinguished service in their professional community and their knowledge of issues affecting the National Earthquake Hazards Reduction Program.

2. The Director of NIST shall appoint the members of the Committee. Members shall be selected on a clear, standardized basis, in accordance with applicable Department of Commerce guidance.

3. The term of office of each member of the Committee shall be three years, except that vacancy appointments shall be for the remainder of the unexpired term of the vacancy and that members shall have staggered terms such that the Committee will have approximately one-third new or reappointed members each year.

Miscellaneous

1. Members of the Committee shall not be compensated for their services, but may, upon request, be allowed travel and per diem expenses in accordance with 5 U.S.C. 5701 *et seq.,* while attending meetings of the Committee or subcommittees thereof, or while otherwise performing duties at the request of the Chairperson, while away from their homes or regular places of business.

2. Members of the Committee shall serve as Special Government Employees (SGEs) and will be subject to the ethics standards applicable to SGEs and are required to file an annual Executive Branch Confidential Financial Disclosure Report.

3. The Committee members shall meet face-to-face at least once per year. Additional meetings may be called whenever requested by the NIST Director; such meetings may be in the form of telephone conference calls and/or videoconferences.

4. Committee meetings are open to the public.

Nomination Information

1. Members will be drawn from industry and other communities having an interest in the Program, such as, but not limited to, research and academic institutions, industry standards development organizations, state and local government, and financial communities, who are qualified to provide advice on earthquake hazards reduction and represent all related scientific, architectural, and engineering disciplines.

2. Any person who has completed two consecutive full terms of service on the Committee shall be ineligible for appointment for a third term during the two-year period following the expiration of the second term.

3. Nominees should have established records of distinguished service. The field of expertise that the candidate represents should be specified in the nomination letter. A summary of the candidate's qualifications should be included with the nomination, including (where applicable) current or former service on Federal advisory boards and Federal employment.

4. The Department of Commerce is committed to equal opportunity in the workplace and seeks a broad based and diverse Committee membership.

Board of Overseers of the Malcolm Baldrige National Quality Award

Address: Please submit nominations to Robert Fangmeyer, Director, Baldrige Performance Excellence Program, NIST, 100 Bureau Drive, Mail Stop 1020, Gaithersburg, MD 20899–1020. Nominations may also be submitted via email to *Robert.Fangmeyer@nist.gov.* Additional information regarding the Committee, including its charter, current membership list, and executive summary, may be found at *http://www.nist.gov/baldrige/community/overseers.cfm.*

Contact Information: Robyn Verner, Designated Federal Officer, Baldrige Performance Excellence Program, NIST, 100 Bureau Drive, Mail Stop 1020, Gaithersburg, MD 20899–1020; telephone 301–975–2361 or via email at *Robyn.Verner@nist.gov.*

Committee Information

The Board of Overseers of the Malcolm Baldrige National Quality Award (Board) was established in accordance with 15 U.S.C. 3711a(d)(2)(B), pursuant the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

Objectives and Duties

1. The Board shall review the work of the private sector contractor(s), which assists the Director of NIST in administering the Malcolm Baldrige National Quality Award (Award). The Board will make such suggestions for the improvement of the Award process as it deems necessary.

2. The Board shall make an annual report on the results of Award activities to the Director of NIST, along with its recommendations for the improvement of the Award process.

3. The Board will function solely as an advisory committee under the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

4. The Board will report to the Director of NIST.

Membership

1. The Board will consist of at least five and approximately 12 members selected on a clear, standardized basis, in accordance with applicable Department of Commerce guidance, and for their preeminence in the field of organizational performance excellence. There will be a balanced representation from U.S. service, manufacturing, nonprofit, education, and health care industries. The Board will include members familiar with the quality, performance improvement operations, and competitiveness issues of manufacturing companies, service companies, nonprofits, health care providers, and educational institutions.

2. Board members will be appointed by the Secretary of Commerce for three-year terms and will serve at the discretion of the Secretary. All terms will commence on March 1 and end on the last day of February of the appropriate years.

Miscellaneous

1. Members of the Board shall serve without compensation, but may, upon request, be reimbursed travel expenses, including per diem, as authorized by 5 U.S.C. 5701 *et seq.*

2. The Board will meet at least annually, but usually two times a year. Additional meetings may be called as deemed necessary by the NIST Director.

3. Board meetings are open to the public. Board members do not have access to classified or proprietary information in connection with their Board duties.

Nomination Information

1. Nominations are sought from the private and public sector as described above.

2. Nominees should have established records of distinguished service and shall be familiar with the quality improvement operations and competitiveness issues of manufacturing companies, service companies, educational institutions, health care providers, and nonprofit organizations. The relevant expertise of the candidate should be specified in the nomination letter. A summary of the candidate's qualifications should be included with the nomination, including (where applicable) current or former service on Federal advisory boards and Federal employment. Besides participation at meetings, it is desired that members be able to devote the equivalent of seven days between meetings to either developing or researching topics of potential interest, and so forth, in furtherance of their Board duties.

3. The Department of Commerce is committed to equal opportunity in the workplace and seeks a broad-based and diverse Board membership.

Industrial Advisory Committee

Address: Please submit nominations to Tamiko Ford, Designated Federal Officer, National Institute of Standards and Technology, 100 Bureau Drive, MS 1000, Gaithersburg, MD 20899. Nominations may also be submitted via email to *Tamiko.Ford@nist.gov.* Additional information regarding the Committee, including its charter, current membership list, and executive summary, may be found at *https://www.nist.gov/adiis/industrial-advisory-committee.*

Contact Information: Tamiko Ford, Designated Federal Officer, National Institute of Standards and Technology, 100 Bureau Drive, MS 1000, Gaithersburg, MD 20899. Nominations may also be submitted via email to *Tamiko.Ford@nist.gov.*

Committee Information

The Secretary of Commerce (Secretary), in consultation with the Secretary of Defense, the Secretary of Energy, and the Secretary of Homeland Security, established the Industrial Advisory Committee (the Committee) in accordance with the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.,* and the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Act), Public Law 116–283, 9906(b). The Committee shall assess and provide guidance to the Secretary, through the National Institute for Standards and Technology (NIST), on matters relating to microelectronics research, development, manufacturing, and policy.

Objectives and Duties

1. The Committee shall act in the public interest to provide advice to the Secretary of Commerce through the National Institute of Standards and Technology (NIST) on matters relating to microelectronics research, development, manufacturing, and policy.

2. The Committee will function solely as an advisory body, in accordance with the provisions of FACA. The Committee shall assess and provide guidance to the Secretary of Commerce, through NIST, on—

a. science and technology needs of the nation's domestic microelectronics industry;

b. the extent to which the strategy developed under section 9906(a)(3) of the Act is helping maintain United States leadership in microelectronics manufacturing;

c. assessment of the research and development programs and activities authorized under section 9906 of the Act; and

d. opportunities for new public-private partnerships to advance microelectronics research, development, and domestic manufacturing.

The Committee shall not participate in selecting recipients of Federal financial assistance.

Membership

Members of the Committee shall be appointed by the Secretary of Commerce. The Committee shall be composed of not fewer than 12 members who are qualified to provide advice to the United States Government on matters relating to microelectronics research, development, manufacturing, and policy. The membership shall be fairly balanced among representatives of the semiconductor industry, representatives of Federal laboratories and academia, and other members. Members of the Committee shall serve as representative members or as regular government employee (RGE) members.

Miscellaneous

1. The Committee members serve three-year terms and may serve two consecutive terms at the discretion of the Secretary, except that vacancy appointments shall be for the remainder of the unexpired term of the vacancy and that members shall have staggered terms such that the Committee will have approximately one-third new or reappointed members each year. Members who are not able to fulfill the duties and responsibilities of the Committee will have their membership terminated. A member who has served two consecutive full terms is ineligible to serve a third term for a period of one year following the expiration of the second term. Vacancies are filled as soon as highly qualified candidates in needed areas are identified and available to serve.

2. The Secretary of Commerce shall appoint the Committee Chair and Vice-Chair from among the Committee membership. The tenures of the Chair and Vice-Chair shall be two years and

can be modified at the discretion of the Secretary. The Vice-Chair shall perform the duties of the Chair in his or her absence. In case a vacancy occurs in the position of the Chair or Vice-Chair, the Secretary shall select a member to fill such a vacancy; the Vice-Chair will succeed the Chair in the interim until the Secretary's appointment of a member to fill the Chair's vacancy.

3. Committee members will be reimbursed for travel and per diem as it pertains to official business of the Committee in accordance with 5 U.S.C. 5701 *et seq.* Committee members will serve without compensation, except that Federal Government employees who are members of the Committee shall remain covered by their compensation system pursuant to 41 CFR 102–3.130(h).

4. Members shall not reference or otherwise utilize their membership on the Committee in connection with public statements made in their personal capacities without a disclaimer that the views expressed are their own and do not represent the views of the Committee, NIST, or the Department of Commerce.

5. NIST, when necessary and consistent with the Committee's mission and Departmental policies and procedures, may establish subcommittees, task forces, and working groups, drawn in whole or in part from the Committee, pursuant to the provisions of FACA, the FACA implementing regulations, and applicable Departmental guidance. The Department of Commerce requires that each subcommittee include at least one member of the Committee. Subcommittees must report back to the Committee and must not provide advice or work products directly to NIST or the Secretary, and any recommendations based on their work will be deliberated and adopted by the Committee prior to dissemination

Nomination Information

NIST uses a nomination process to identify candidates for the Committee. Nominations are requested through annual announcements in the **Federal Register** and through solicitations to NIST, the Department of Commerce, the Department of Defense, the Department of Energy, the Department of Homeland Security, the National Academies, professional societies, business associations, labor associations, and other appropriate organizations and individuals in order to ensure a diverse pool of applicants. Candidates may be nominated by their peers or may self-nominate. NIST requests that the nomination includes a resume or biographical sketch that specifically identifies the qualifications of the individual being nominated. Qualifications considered may include, among others: scientific and technical knowledge in selected areas and professional experience. The Director of NIST recommends one or more candidates for further review to fill vacancies on the Committee on the basis of the qualifications, the sectors the candidates may represent and the existing representation on the Committee, and the other balance factors. This further review is to ensure compliance with Federal governance requirements, including compliance with the Committee's charter and membership balance plan. The Secretary of Commerce makes the final decision for appointment to the Committee.

Information Security and Privacy Advisory Board (ISPAB)

Address: Please submit nominations to Jeffrey Brewer, NIST, 100 Bureau Drive, Mail Stop 8930, Gaithersburg, MD 20899–8930. Nominations may also be submitted via email at *Jeffrey.Brewer@nist.gov,* Attn: ISPAB Nominations. Additional information regarding the ISPAB, including its charter and current membership list, may be found on its electronic home page at *http://csrc.nist.gov/groups/SMA/ispab/index.html.*

Contact Information: Jeffrey Brewer, ISPAB Designated Federal Officer (DFO), NIST, 100 Bureau Drive, Mail Stop 8930, Gaithersburg, MD 20899–8930; telephone 301–975–2489; or via email at *Jeffrey.Brewer@nist.gov.*

Committee Information

The ISPAB (Committee or Board) was originally chartered as the Computer System Security and Privacy Advisory Board by the Department of Commerce pursuant to the Computer Security Act of 1987 (Pub. L. 100–235). The E-Government Act of 2002 (Pub. L. 107–347, Title III), amended section 21 of the National Institute of Standards and Technology Act (15 U.S.C. 278g–4), including changing the Committee's name, and the charter was amended accordingly.

Objectives and Duties

1. The Board will identify emerging managerial, technical, administrative, and physical safeguard issues relative to information security and privacy.

2. The Board will advise NIST, the Secretary of Homeland Security, and the Director of the Office of Management and Budget (OMB) on information security and privacy issues pertaining to Federal Government information systems, including through review of proposed standards and guidelines developed by NIST.

3. The Board shall report to the Director of NIST.

4. The Board reports annually to the Secretary of Commerce, the Secretary of Homeland Security, the Director of OMB, the Director of the National Security Agency, and the appropriate committees of the Congress.

5. The Board will function solely as an advisory body, in accordance with the provisions of the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

Membership

1. The Director of NIST will appoint the Chairperson and the members of the ISPAB, and members serve at the discretion of the NIST Director. Members will be selected on a clear, standardized basis, in accordance with applicable Department of Commerce guidance.

2. The ISPAB will consist of a total of 12 members and a Chairperson, for a total of 13.

- The Board will include four members from outside the Federal Government who are eminent in the information technology industry, at least one of whom is representative of small or medium sized companies in such industries.
- The Board will include four members from outside the Federal Government who are eminent in the fields of information technology, or related disciplines, but who are not employed by or representative of a producer of information technology.
- The Board will include four members from the Federal Government who have information system management experience, including experience in information security and privacy, at least one of whom shall be from the National Security Agency.

Miscellaneous

1. Members of the Board, other than full-time employees of the Federal Government, will not be compensated for their services, but will, upon request, be allowed travel expenses pursuant to 5 U.S.C. 5701 *et seq.,* while otherwise performing duties at the request of the Board Chairperson, while away from their homes or a regular place of business.

2. Meetings of the ISPAB are usually two to three days in duration and are usually held quarterly. ISPAB meetings are open to the public, including the press. Members do not have access to classified or proprietary information in connection with their ISPAB duties.

Nomination Information

1. Nominations are being accepted in all three categories described above.

2. Nominees should have specific experience related to information security or privacy issues, particularly as they pertain to Federal information technology. Letters of nomination should include the category of membership for which the candidate is applying and a summary of the candidate's qualifications for that specific category. Also include (where applicable) current or former service on Federal advisory boards and any Federal employment. Each nomination letter should state that the person agrees to the nomination, acknowledges the responsibilities of serving on the ISPAB, and that they will actively participate in good faith in the tasks of the ISPAB.

3. Besides participation at meetings, it is desired that members be able to devote a minimum of two days between meetings to developing draft issue papers, researching topics of potential interest, and so forth in furtherance of their ISPAB duties.

4. Selection of ISPAB members will not be limited to individuals who are nominated. Nominations that are received and meet the requirements will be kept on file to be reviewed as ISPAB vacancies occur.

5. The Department of Commerce is committed to equal opportunity in the workplace and seeks a broad-based and diverse ISPAB membership.

Internet of Things Advisory Board

Address: Please submit nominations to Barbara Cuthill, Designated Federal Officer, National Institute of Standards and Technology, 100 Bureau Drive, MS 2000, Gaithersburg, MD 20899. Nominations may also be submitted via email to *barbara.cuthill@nist.gov.*

Contact Information: Alison Kahn, Electronics Engineer, National Institute of Standards and Technology, 100 Bureau Drive, MS 2000, Gaithersburg, MD 20899. Her email is *alison.kahn@nist.gov.* Additional information regarding the Committee, including its charter, current membership list, and executive summary, may be found at *https://www.nist.gov/itl/applied-cybersecurity/nist-cybersecurity-iot-program/internet-things-advisory-board.*

Committee Information

The Secretary of Commerce (Secretary) established the Internet of Things Advisory Board (IoTAB) in accordance with the requirements of 9204(b)(5) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Pub. L. 116–283), and in accordance with the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.* The IoTAB shall provide advice to the Internet of Things Federal Working Group (IoTFWG) on matters related to the Internet of Things as specified below. The IoTAB shall submit to the IoTFWG a report that includes any findings or recommendations related to the specific scope below.

Objectives and Duties

The Board shall advise the Internet of Things Federal Working Group convened by the Secretary pursuant to section 9204(b)(1) of the Act on matters related to the Federal Working Group's activities, as specified below.

The Board shall advise the Federal Working Group with respect to—

a. the identification of any Federal regulations, statutes, grant practices, programs, budgetary or jurisdictional challenges, and other sector-specific policies that are inhibiting, or could inhibit, the development of the Internet of Things;

b. situations in which the use of the Internet of Things is likely to deliver significant and scalable economic and societal benefits to the United States, including benefits from or to—

i. smart traffic and transit technologies;

ii. augmented logistics and supply chains;

iii. sustainable infrastructure;

iv. precision agriculture;

v. environmental monitoring;

vi. public safety; and

vii. health care;

c. whether adequate spectrum is available to support the growing Internet of Things and what legal or regulatory barriers may exist to providing any spectrum needed in the future;

d. policies, programs, or multi-stakeholder activities that—

i. promote or are related to the privacy of individuals who use or are affected by the Internet of Things;

ii. may enhance the security of the Internet of Things, including the security of critical infrastructure;

iii. may protect users of the Internet of Things; and

iv. may encourage coordination among Federal agencies with jurisdiction over the Internet of Things;

e. the opportunities and challenges associated with the use of Internet of Things technology by small businesses; and

f. any international proceeding, international negotiation, or other international matter affecting the Internet of Things to which the United States is or should be a party.

The Board shall submit to the Internet of Things Federal Working Group a report that includes any of its findings or recommendations. The report will be administratively delivered to the Internet of Things Federal Working Group through the Director of the National Institute of Standards and Technology (NIST).

The Board shall set its own agenda in carrying out its duties. The Federal Working Group may suggest topics or items for the Board to study, and the Board shall take those suggestions into consideration in carrying out its duties.

The Board will function solely as an advisory body, in accordance with the provisions of FACA.

Membership

Members of the Board shall be appointed by the Secretary. The Board shall consist of 16 members representing a wide range of stakeholders outside of the Federal Government with expertise relating to the Internet of Things, including: (i) information and communications technology manufacturers, suppliers, service providers, and vendors; (ii) subject matter experts representing industrial sectors other than the technology sector that can benefit from the Internet of Things, including the transportation, energy, agriculture, and health care sectors; (iii) small, medium, and large businesses; (iv) think tanks and academia; (v) nonprofit organizations and consumer groups; (vi) security experts; (vii) rural stakeholders; and (viii) other stakeholders with relevant expertise, as determined by the Secretary.

The Board members shall serve terms of two years (unless the Board terminates earlier). Vacancies are filled as soon as highly qualified candidates in a needed area of stakeholder interest are identified and available to serve. Members of the Board shall serve as representative members. Full-time or permanent part-time Federal officers or employees will not be appointed to the Board. Members must be citizens of the United States of America.

Members of the Board shall not be compensated for their services. Members of the Board, while attending meetings of the Board away from their homes or regular place of business, may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of Title 5, United States Code, for individuals intermittently serving in the Government without pay.

Members shall not reference or otherwise utilize their membership on the Board in connection with public

statements made in their personal capacities without a disclaimer that the views expressed are their own and do not represent the views of the Board, the Federal Working Group, NIST, or the Department of Commerce.

The Secretary will appoint the Board's Chair from among the approved members in accordance with policies and procedures and, in doing so, shall determine the term of service for the Board's Chair.

Miscellaneous

Meetings will be conducted at least twice each year.

Nomination Information

NIST uses a nomination process to identify candidates for the Board. Nominations are requested through an announcement in the **Federal Register** and through solicitations through the Federal Working Group, NIST, the Department of Commerce, other Federal agencies, and organizations representing relevant businesses, consumers, communities, and economic sectors in order to ensure a robust and diverse pool of applicants. Candidates may be nominated by their peers or may self-nominate. NIST requests that the nomination includes a resume for the individual that specifically identifies the stakeholder interest of the individual being nominated. Qualifications considered may include, among others: education, professional experience, and scientific and technical expertise in selected areas. The Director of the Information Technology Laboratory (ITL) recommends candidates for further review to fill vacancies on the Board in the areas of needed stakeholder interest and on the basis of the qualifications, the sectors the candidates may represent and the existing representation on the Board, and other balance factors. The Director of ITL recommends nominees to the Director of NIST, who reviews the recommendation for submission to the Secretary of Commerce. Candidates for the Board are then reviewed by and appointed by the Secretary of Commerce.

The Board members shall serve terms of two years (unless the Board terminates earlier). Vacancies are filled as soon as highly qualified candidates in a needed area of stakeholder interest are identified and available to serve.

The Department of Commerce seeks a broad-based and diverse IoTAB membership.

Judges Panel of the Malcolm Baldrige National Quality Award

Address: Please submit nominations to Robert Fangmeyer, Director, Baldrige Performance Excellence Program, NIST, 100 Bureau Drive Mail Stop 1020, Gaithersburg, MD 20899–1020. Nominations may also be submitted via email *Robert.Fangmeyer@nist.gov.* Additional information regarding the Committee, including its charter, current membership list, and executive summary, may be found at *https://www.nist.gov/baldrige/how-baldrige-works/baldrige-community/judges-panel.*

Contact Information: Robyn Verner, Designated Federal Officer, Baldrige Performance Excellence Program, NIST, 100 Bureau Drive, Mail Stop 1020, Gaithersburg, MD 20899–1020; telephone 301–975–2361 or via email at *Robyn.Verner@nist.gov.*

Committee Information

The Judges Panel of the Malcolm Baldrige National Quality Award (Panel) was established in accordance with 15 U.S.C. 3711a(d)(1) and the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

Objectives and Duties

1. The Panel will ensure the integrity of the Malcolm Baldrige National Quality Award (Award) selection process. Based on a review of results of examiners' scoring of written applications, Panel members will vote on which applicants' merit site visits by examiners to verify the accuracy of quality improvements claimed by applicants. The Panel will also review results and findings from site visits, and recommend Award recipients.

2. The Panel will ensure that individual judges will not participate in the review of applicants as to which they have any real or perceived conflict of interest.

3. The Panel will function solely as an advisory body, and will comply with the provisions of the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

4. The Panel will report to the Director of NIST.

Membership

1. The Panel will consist of no less than 9, and not more than 12, members selected on a clear, standardized basis, in accordance with applicable Department of Commerce guidance. There will be a balanced representation from U.S. service, manufacturing, nonprofit, education, and health care industries. The Panel will include members familiar with the quality improvement operations and competitiveness issues of manufacturing companies, service companies, nonprofits, health care providers, and educational institutions.

2. Panel members will be appointed by the Secretary of Commerce for three-year terms and will serve at the discretion of the Secretary. All terms will commence on March 1 and end on the last day of February of the appropriate year.

3. Members who are not Federal employees will serve as Special Government Employees (SGEs) and will be subject to the ethical standards applicable to SGEs.

Miscellaneous

1. Members of the Panel shall serve without compensation, but may, upon request, be reimbursed travel expenses, including per diem, as authorized by 5 U.S.C. 5701 *et seq.*

2. The Panel will meet three times per year. Additional meetings may be called as deemed necessary by the NIST Director or by the Chairperson. Meetings are usually one to four days in duration. In addition, each Judge must attend an annual three-day Examiner training course.

3. When approved by the Department of Commerce Chief Financial Officer and Assistant Secretary for Administration, Panel meetings are closed or partially closed to the public.

Nomination Information

1. Nominations are sought from all U.S. service and manufacturing industries, education, health care, and nonprofits as described above.

2. Nominees should have established records of distinguished service and shall be familiar with the quality improvement operations and competitiveness issues of manufacturing companies, service companies, health care providers, educational institutions, and nonprofit organizations. The category (field of eminence) for which the candidate is qualified should be specified in the nomination letter. A summary of the candidate's qualifications should be included with the nomination, including (where applicable) current or former service on Federal advisory boards and Federal employment. Besides participation at meetings, it is desired that members be either developing or researching topics of potential interest, reading Baldrige applications, and so forth, in furtherance of their Panel duties.

3. The Department of Commerce is committed to equal opportunity in the workplace and seeks a broad-based and diverse Panel membership.

Manufacturing Extension Partnership (MEP) Advisory Board

Address: Please submit nominations to Ms. Cheryl Gendron, NIST, 100 Bureau Drive, Mail Stop 4800, Gaithersburg, MD 20899–4800. Nominations may also be submitted via email at *Cheryl.Gendron@nist.gov.* Additional information regarding MEP, including its charter, may be found on its electronic home page at *http://www.nist.gov/mep/advisory-board.cfm.*

Contact Information: Ms. Cheryl Gendron, Designated Federal Officer, NIST, 100 Bureau Drive, Mail Stop 4800, Gaithersburg, MD 20899–4800; telephone 301–975–4919, fax 301–963–6556; or via email at *Cheryl.Gendron@nist.gov.*

Committee Information

The MEP Advisory Board (Board) is authorized under section 501 of the American Innovation and Competitiveness Act (Pub. L. 114–329); codified at 15 U.S.C. 278k(m), as amended, in accordance with the provisions of the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

Objectives and Duties

1. The Board will provide advice on MEP activities, plans, and policies.
2. The Board will assess the soundness of MEP plans and strategies.
3. The Board will assess current performance against MEP program plans.
4. The Board will function solely in an advisory capacity, and in accordance with the provisions of the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*
5. The Board shall transmit through the Director of NIST an annual report to the Secretary of Commerce for transmittal to Congress not later than 30 days after the submission to Congress of the President's annual budget request each year. The report shall address the status of the MEP program.

Membership

1. The Board shall consist of not fewer than 10 members, appointed by the Director of NIST and broadly representative of stakeholders. At least 2 members shall be employed by or on an advisory board for a MEP Center, at least 5 members shall be from U.S. small businesses in the manufacturing sector, and at least 1 member shall represent a community college. No member shall be an employee of the Federal Government.
2. The Director of NIST shall appoint the members of the Board. Members shall be selected on a clear, standardized basis, in accordance with applicable Department of Commerce guidance. Board members serve at the discretion of the Director of NIST.
3. The term of office of each member of the Board shall be three years, except that vacancy appointments shall be for the remainder of the unexpired term of the vacancy. Any person who has completed two consecutive full terms of service on the Board shall thereafter be ineligible for appointment during the one-year period following the expiration of the second term.

Miscellaneous

1. Members of the Board will not be compensated for their services but will, upon request, be allowed travel and per diem expenses as authorized by 5 U.S.C. 5701 *et seq.,* while attending meetings of the Board or subcommittees thereof, or while otherwise performing duties at the request of the Chair, while away from their homes or regular places of business.
2. The Board will meet at least biannually. Additional meetings may be called by the Director of NIST or the Designated Federal Officer (DFO).
3. Committee meetings are open to the public.

Nomination Information

1. Nominations are being accepted in all categories described above.
2. Nominees should have specific experience related to manufacturing and industrial extension services. Letters of nomination should include the category of membership for which the candidate is applying and a summary of the candidate's qualifications for that specific category.
3. Nominations that are received and meet the requirements will be kept on file to be reviewed as Board vacancies occur.
4. The Department of Commerce is committed to equal opportunity in the workplace and seeks a broad-based and diverse MEP Advisory Board membership.

National Artificial Intelligence Advisory Committee (NAIAC)

Address: Please submit nominations to Melissa Banner, Designated Federal Officer, National Institute of Standards and Technology, 100 Bureau Drive, MS 1000, Gaithersburg, MD 20899. Nominations may also be submitted via email to *melissa.banner@nist.gov.*

Contact Information: Elham Tabassi, Associate Director, Information Technology Laboratory, National Institute of Standards and Technology, 100 Bureau Drive, MS 8940, Gaithersburg, MD 20899. Her email is *elham.tabassi@nist.gov.*

Committee Information

The Secretary of Commerce established the National Artificial Intelligence Advisory Committee (the NAIAC or the Committee) pursuant to section 5104 of the National Artificial Intelligence Initiative Act of 2020 (Pub. L. 116–283), hereinafter referred to as the Act, and the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

The Committee shall provide advice to the President and the National Artificial Intelligence Initiative Office on matters related to the National Artificial Intelligence Initiative (Initiative). The purposes of the Initiative are: (1) ensuring continued United States leadership in artificial intelligence research and development; (2) leading the world in the development and use of trustworthy artificial intelligence systems in the public and private sectors; (3) preparing the present and future United States workforce for the integration of artificial intelligence systems across all sectors of the economy and society; and (4) coordinating ongoing artificial intelligence research, development, and demonstration activities among the civilian agencies, the Department of Defense, and the Intelligence Community to ensure that each informs the work of the others.

Objectives and Duties

The Committee shall advise the President and the Initiative Office on matters related to the Initiative, including recommendations related to:

a. The current state of United States competitiveness and leadership in artificial intelligence, including the scope and scale of United States investments in artificial intelligence research and development in the international context;

b. The progress made in implementing the Initiative, including a review of the degree to which the Initiative has achieved the goals according to the metrics established by the Interagency Committee under section 5103(d)(2) of the Act;

c. The state of the science around artificial intelligence, including progress toward artificial general intelligence;

d. Issues related to artificial intelligence and the United States workforce, including matters relating to the potential for using artificial intelligence for workforce training, the possible consequences of technological displacement, and supporting workforce training opportunities for occupations that lead to economic self-sufficiency for individuals with barriers to employment and historically

underrepresented populations, including minorities, Indians (as defined in 25 U.S.C. 5304), low-income populations, and persons with disabilities;

e. How to leverage the resources of the Initiative to streamline and enhance operations in various areas of government operations, including health care, cybersecurity, infrastructure, and disaster recovery;

f. The need to update the Initiative;

g. The balance of activities and funding across the Initiative;

h. Whether the strategic plan developed or updated by the Interagency Committee established under section 5103(d)(2) of the Act is helping to maintain United States leadership in artificial intelligence;

i. The management, coordination, and activities of the Initiative;

j. Whether ethical, legal, safety, security, and other appropriate societal issues are adequately addressed by the Initiative;

k. Opportunities for international cooperation with strategic allies on artificial intelligence research activities, standards development, and the compatibility of international regulations;

l. Accountability and legal rights, including matters relating to oversight of artificial intelligence systems using regulatory and nonregulatory approaches, the responsibility for any violations of existing laws by an artificial intelligence system, and ways to balance advancing innovation while protecting individual rights; and

m. How artificial intelligence can enhance opportunities for diverse geographic regions of the United States, including urban, Tribal, and rural communities.

In addition, pursuant to section 5104(e) of the Act, the Committee's Chairperson shall establish a subcommittee that shall provide advice to the President, through the Committee, on matters related to the development of AI relating to law enforcement, including advice on the following:

A. Bias, including whether the use of facial recognition by government authorities, including law enforcement agencies, is taking into account ethical considerations and addressing whether such use should be subject to additional oversight, controls, and limitations.

B. Security of data, including law enforcement's access to data and the security parameters for that data.

C. Adoptability, including methods to allow the United States Government and industry to take advantage of artificial intelligence systems for security or law enforcement purposes while at the same time ensuring the potential abuse of such technologies is sufficiently mitigated.

D. Legal standards, including those designed to ensure the use of artificial intelligence systems are consistent with the privacy rights, civil rights and civil liberties, and disability rights issues raised by the use of these technologies.

Membership

Members of the Committee shall be appointed by the Secretary of Commerce. The Committee shall consist of not less than 9 members, who represent broad and interdisciplinary expertise and perspectives, including from academic institutions, companies across diverse sectors, nonprofit and civil society entities, including civil rights and disability rights organizations, and Federal laboratories, who represent geographic diversity, and who are qualified to provide advice and information on science and technology research, development, ethics, standards, education, technology transfer, commercial application, security, and economic competitiveness related to artificial intelligence.

In selecting the members of the Committee, the Secretary of Commerce shall seek and give consideration to recommendations from Congress, industry, nonprofit organizations, the scientific community (including the National Academies of Sciences, Engineering, and Medicine, scientific professional societies, and academic institutions), the defense and law enforcement communities, and other appropriate organizations.

Miscellaneous

Meetings will be conducted at least twice each year.

1. Generally, Committee meetings are open to the public.

2. Meeting may be held in-person in selected locations across the country and/or virtually.

Nomination Information

1. Nominations are sought from all fields, sectors, and perspectives described above.

2. Nominees should represent broad and interdisciplinary expertise and perspectives, including from academic institutions, companies across diverse sectors, nonprofit and civil society entities, including civil rights and disability rights organizations, and Federal laboratories, who represent geographic diversity, and who are qualified to provide advice and information on science and technology research, development, ethics, standards, education, technology transfer, commercial application, security, and economic competitiveness related to artificial intelligence. The field of eminence for which the candidate is qualified should be specified in the nomination letter. A summary of the candidate's qualifications should be included with the nomination, including (where applicable) current or former service on Federal advisory boards and Federal employment. In addition, each nomination letter should state whether the candidate seeks to serve on the Committee, the Subcommittee, or both; and that the candidate acknowledges the responsibilities of serving and will actively participate in good faith in the tasks of the Committee or Subcommittee, as appropriate. Third-party nomination letters should state that the candidate agrees to the nomination.

3. The Department of Commerce seeks a broad-based and diverse Committee and subcommittee membership.

National Construction Safety Team (NCST) Advisory Committee

Address: Please submit nominations to Benjamin Davis, Designated Federal Officer, NIST, 100 Bureau Drive, Mail Stop 8615, Gaithersburg, MD 20899–8604 or via email at *Benjamin.Davis@nist.gov.* Additional information regarding the NCST Advisory Committee, including its charter, may be found on its electronic home page at *https://www.nist.gov/el/disaster-resilience/disaster-and-failure-studies/national-construction-safety-team-ncst/advisory.*

Contact Information: Maria Dillard, Acting Director, Disaster and Failure Studies Program, NIST, 100 Bureau Drive, Mail Stop 8615, Gaithersburg, MD 20899–8604, telephone 301–975–4953; or via email at *Maria.Dillard@nist.gov.*

Committee Information

The NCST Advisory Committee (Committee) was established in accordance with the National Construction Safety Team Act, Public Law 107–231, and the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

Objectives and Duties

1. The Committee shall advise the Director of NIST on carrying out the National Construction Safety Team Act (Act), review the procedures developed under section 2(c)(1) of the Act, and review the reports issued under section 8 of the Act.

2. The Committee functions solely as an advisory body, in accordance with

the provisions of the Federal Advisory Committee Act.

3. The Committee shall report to the Director of NIST.

4. On January 1 of each year, the Committee shall transmit to the Committee on Science, Space, and Technology of the House of Representatives and to the Committee on Commerce, Science, and Transportation of the Senate a report that includes: (1) an evaluation of National Construction Safety Team (Team) activities, along with recommendations to improve the operation and effectiveness of Teams, and (2) an assessment of the implementation of the recommendations of Teams and of the Committee.

Membership

1. The Committee shall consist of no less than 4 and no more than 12 members. Members shall reflect the wide diversity of technical disciplines and competencies involved in the National Construction Safety Teams investigations. Members shall be selected on the basis of established records of distinguished service in their professional community and their knowledge of issues affecting the National Construction Safety Teams.

2. The Director of NIST shall appoint the members of the Committee, and they will be selected on a clear, standardized basis, in accordance with applicable Department of Commerce guidance.

Miscellaneous

1. Members of the Committee shall not be compensated for their services but may, upon request, be allowed travel and per diem expenses in accordance with 5 U.S.C. 5703.

2. Members of the Committee shall serve as Special Government Employees (SGEs), will be subject to the ethics standards applicable to SGEs, and are required to file an annual Executive Branch Confidential Financial Disclosure Report.

3. The Committee shall meet at least once per year. Additional meetings may be called whenever requested by the NIST Director or the Designated Federal Officer (DFO); such meetings may be in the form of telephone conference calls and/or videoconferences.

Nomination Information

1. Nominations are sought from industry and other communities having an interest in the National Construction Safety Teams investigations.

2. Nominees should have established records of distinguished service. The field of expertise that the candidate represents should be specified in the nomination letter. Nominations for a particular field should come from organizations or individuals within that field. A summary of the candidate's qualifications should be included with the nomination, including (where applicable) current or former service on Federal advisory boards and Federal employment.

3. The Department of Commerce is committed to equal opportunity in the workplace and seeks a broad-based and diverse Committee membership.

National Technical Information Service Advisory Board (NTIS)

Address: Please submit nominations to Elizabeth Shaw, Designated Federal Officer, NTIS, via email at *Elizabeth.Shaw@ntis.gov* and Steven Holland, Alternate Designated Federal Officer, NTIS, via email at *Steven.Holland@ntis.gov.* Additional information regarding the NTIS, including its charter, current membership list, and past reports may be found on its electronic homepage at *https://www.ntis.gov/about/advisorybd/index/xhtml.*

Contact Information: Elizabeth Shaw, Designated Federal Officer, NTIS, via email at *Elizabeth.Shaw@ntis.gov* and Steven Holland, Alternate Designated Federal Officer, NTIS, via email at *Steven.Holland@ntis.gov.*

Committee Information

The National Technical Information Service Advisory Board (NTIS or Advisory Board) was established in accordance with section 3704b(c) of Title 15 of the United States Code, and the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

Objectives and Duties

1. The Advisory Board shall review and make recommendations to improve NTIS programs, operations, and general policies in support of NTIS' mission to advance Federal data priorities, promote economic growth, and enable operational excellence by providing innovative data services to Federal agencies through joint venture partnerships with the private sector.

2. The Advisory Board shall act in the public interest to:

a. Provide advice on the optima data services business and operating model to best implement NTIS' joint venture authority.

b. Provide advice on the means, including infrastructure and process improvements, to make Federal data easier to find, access, analyze, and combine.

c. Assess progress in evolving NTIS programs toward a focus on Federal data priorities.

d. Assess the use of merit-based criteria and processes to plan, conduct, and oversee programs and projects, including the selection of joint venture partners.

e. Assess policies in connection with fees and charges for NTIS services in order for the agency to operate on a substantially self-sustaining basis, as required by law.

f. Assess organizational capabilities required to carry out NTIS's mission, including capabilities in data science and for operational management of its project portfolio.

3. The Committee will function solely as an advisory body, in accordance with the provisions of the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

4. The Committee shall report to the Secretary of Commerce and to the Under Secretary of Commerce for Standards and Technology through the Director of NTIS.

Membership

a. The NTIS Advisory Board shall be composed of a Chairperson appointed by the Secretary and four other members appointed by the Secretary. In the event of a vacancy in the Chairperson position, the NTIS Director may designate a member to serve as acting Chairperson until a Chairperson is appointed by the Secretary.

b. Members shall be selected solely on the basis of established records of distinguished service and objectivity; shall have recognized expertise in data collection, compilation, analysis, use, and dissemination, as well as data science, information technology, cybersecurity, and privacy. Members will be selected from the business, academic, non-profit, and state and local government communities. Reasonable efforts will be made to ensure members represent the entire spectrum of Federal data interests including demographic, economic, trade, health, scientific, patent, environmental, geospatial, cybersecurity, and transactional data. No Federal Government employee shall serve as a member of the Board.

c. The term of office of each member of the Board shall be three years, except that vacancy appointments shall be for the remainder of the unexpired term of the vacancy. All appointments shall automatically terminate if the charter is terminated or not renewed. All members serve at the pleasure of the Secretary.

d. Any person who has completed two consecutive full terms of service on the Board shall be ineligible for

appointment for a third term during the one-year period following the expiration of the second term.

e. Members shall serve as Special Government Employees (SGEs) and will be subject to all ethical standards and rules applicable to SGEs.

2. Members shall not reference or otherwise utilize their membership on the Board in connection with public statements made in their personal capacities without a disclaimer that the views expressed are their own and do not represent the views of the Board, the National Technical Information Service, or the Department of Commerce.

3. Subcommittees: NTIS may establish such subcommittees of its members as may be necessary, pursuant to the provisions of FACA, the FACA implementing regulations, and applicable Department of Commerce guidance. Subcommittees will report to the NTIS Advisory Board and may not provide advice or work products directly to the Department of Commerce or NTIS.

Miscellaneous

1. The Board shall meet at the call of the Secretary or the Secretary's designee, but not less often than once every six months.

2. Generally, Committee meetings are open to the public.

Nomination Information

1. Nominations are sought from all fields described above.

2. Nominees should have established records of distinguished service and shall be eminent in fields. The category (field of eminence) for which the candidate is qualified should be specified in the nomination letter. A summary of the candidate's qualifications should be included with the nomination, including (where applicable) current or former service on Federal advisory boards and Federal employment.

3. The Department of Commerce is committed to equal opportunity in the workplace and seeks a broad-based and diverse NTIS membership.

Visiting Committee on Advanced Technology (VCAT)

Address: Please submit nominations to Stephanie Shaw, Designated Federal Officer, VCAT, NIST, 100 Bureau Drive, Mail Stop 1060, Gaithersburg, MD 20899–1060. Nominations may also be submitted via email at *Stephanie.Shaw@nist.gov.* Additional information regarding the VCAT, including its charter, current membership list, and past reports may be found on its electronic homepage at *http://www.nist.gov/director/vcat/.*

Contact Information: Stephanie Shaw, Designated Federal Officer, VCAT, NIST, 100 Bureau Drive, Mail Stop 1060, Gaithersburg, MD 20899–1060, telephone 301–975–2667 or via email at *Stephanie.Shaw@nist.gov.*

Committee Information

The VCAT (Committee) was established in accordance with 15 U.S.C. 278 and the Federal Advisory Committee Act, 5 U.S.C. 1001 *et seq.*

Objectives and Duties

5. The Committee shall review and make recommendations regarding general policy for NIST, its organization, its budget, and its programs, within the framework of applicable national policies as set forth by the President and the Congress. 15 U.S.C. 278(a).

6. The Committee shall provide an annual report, through the Director of NIST, to the Secretary of Commerce for submission to the Congress not later than 30 days after the submittal to Congress of the President's annual budget request in each year. Such report shall deal essentially, though not necessarily exclusively, with policy issues or matters which affect NIST, or with which the Committee in its official role as the private sector policy adviser of NIST is concerned. Each such report shall identify areas of research and research techniques of the Institute of potential importance to the long-term competitiveness of United States industry, in which the Institute possesses special competence, which could be used to assist United States enterprises and Untied States industrial joint research and development ventures. 15 U.S.C. 278(h)(1). The Committee shall submit, through the Director of NIST, to the Secretary and the Congress such additional reports on specific policy matters as it deems appropriate. 15 U.S.C. 278(h)(2).

7. The Committee will function solely as an advisory body, in accordance with the provisions of the Federal Advisory Committee Act, as amended, 5 U.S.C. App.

8. The Committee shall report to the Director of NIST.

Membership

4. The Director of NIST shall appoint the members of the Committee. Members shall be selected on a clear, standardized basis, in accordance with applicable Department of Commerce guidance. 15 U.S.C. 278(a). Members shall be selected solely on the basis of established records of distinguished service; shall provide representation of a cross-section of traditional and emerging United States industries; and shall be eminent in fields such as business, research, new product development, engineering, labor, education, management consulting, environment, and international relations. No employee of the Federal Government shall serve as a member of the Committee. 15 U.S.C. 278(b).

5. Members of the Committee shall serve as Special Government Employees (SGEs) and will be subject to the ethics standards applicable to SGEs.

6. The Committee shall consist of not fewer than nine members appointed by the Director of NIST, a majority of whom shall be from United States industry. 15 U.S.C. 278(a). The term of office of each member of the Committee shall be three years, except that vacancy appointments shall be for the remainder of the unexpired term of the vacancy. 15 U.S.C. 278(c)(1). Members shall serve at the discretion of the Director of NIST.

7. Any person who has completed two consecutive full terms of service on the Committee shall be ineligible for appointment for a third term during the one-year period following the expiration of the second term. 15 U.S.C. 278(c)(1).

8. Pursuant to 15 U.S.C. 278(f), the Committee chairperson and vice chairperson shall be elected by the members of the Committee at each annual meeting occurring in an even-numbered year. The vice chairperson shall perform the duties of the chairperson in his or her absence. In case a vacancy occurs in the position of the chairperson or vice chairperson, the Committee shall elect a member to fill such vacancy.

9. Members of the Committee will not be compensated for their services, but will, upon request, be allowed travel expenses in accordance with 5 U.S.C. 5701 *et seq.,* while attending meetings of the Committee or of its subcommittees, or while otherwise performing duties at the request of the chairperson, while away from their homes or a regular place of business.

10. Pursuant to 15 U.S.C. 278(g), the Committee may, with the concurrence of a majority of its members, permit the appointment of a staff consisting of not more than four professional staff members and such clerical staff members as may be necessary. Such staff members shall be appointed by the Director after consultation with the chairperson of the Committee and assigned at the direction of the Committee.

11. Subcommittees: Pursuant to 15 U.S.C. 278(e), the Committee shall have an executive committee, and may delegate to it such powers and functions

of the Committee as it deems appropriate. The Committee and/or the Director of NIST may establish such other subcommittees, task forces, and working groups consisting of members from the parent Committee as may be necessary, subject to the provisions of FACA, the FACA implementing regulations, and applicable Department of Commerce guidance. Subcommittees must report back to the Committee and any recommendations based on their work will be deliberated and agreed upon by the Committee prior to dissemination to NIST.

Miscellaneous

3. Meetings of the VCAT usually take place at the NIST headquarters in Gaithersburg, Maryland. The Committee will meet at least twice each year at the call of the chairperson or whenever one-third of the members so request in writing. The Committee shall not act in the absence of a quorum, which shall consist of a majority of the members of the Committee not having a conflict of interest in the matter being considered by the Committee. 15 U.S.C. 278(d).

4. Generally, Committee meetings are open to the public.

Nomination Information

4. Nominations are sought from all fields described above.

5. Nominees should have established records of distinguished service and shall be eminent in fields such as business, research, new product development, engineering, labor, education, management consulting, environment and international relations. The category (field of eminence) for which the candidate is qualified should be specified in the nomination letter. A summary of the candidate's qualifications should be included with the nomination, including (where applicable) current or former service on Federal advisory boards and Federal employment. In addition, each nomination letter should state that the candidate agrees to the nomination, acknowledges the responsibilities of serving on the VCAT, and will actively participate in good faith in the tasks of the VCAT.

6. The Department of Commerce is committed to equal opportunity in the workplace and seeks a broad-based and diverse VCAT membership.

Alicia Chambers,

NIST Executive Secretariat.

[FR Doc. 2023–09421 Filed 5–3–23; 8:45 am]

BILLING CODE 3510–13–P

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Agency Information Collection Activities; Submission to the Office of Management and Budget (OMB) for Review and Approval; Comment Request; iEdison System

AGENCY: National Institute of Standards and Technology (NIST), Commerce.

ACTION: Notice of information collection, request for comment.

SUMMARY: The Department of Commerce, in accordance with the Paperwork Reduction Act of 1995 (PRA), invites the general public and other Federal agencies to comment on proposed, and continuing information collections, which helps us assess the impact of our information collection requirements and minimize the public's reporting burden. The purpose of this notice is to allow for 60 days of public comment preceding submission of the collection to OMB.

DATES: To ensure consideration, comments regarding this proposed information collection must be received on or before July 3, 2023.

ADDRESSES: Interested persons are invited to submit written comments by mail to Bureau Elizabeth Reinhart, Management Analyst, NIST, 100 Bureau Drive, Gaithersburg, MD 20899, or by email to *PRAcomments@doc.gov*). Please reference OMB Control Number 0693–0090 in the subject line of your comments. Do not submit Confidential Business Information or otherwise sensitive or protected information.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or specific questions related to collection activities should be directed to Bethany Loftin, Interagency and iEdison Specialist, 100 Bureau Drive, Gaithersburg, MD 20899, 202–941–7750, *bethany.loftin@nist.gov.*

SUPPLEMENTARY INFORMATION:

I. Abstract

The Bayh-Dole Act (35 U.S.C. 18) and its implementing regulations (37 CFR 401) allow for recipients of federal research funding (Contractors) to retain ownership of inventions developed under federal funding agreements. In exchange, the government retains certain rights to the invention, including a world-wide right to use by or on behalf of the U.S. government. The law also requires the Contractor to obtain permission for certain actions and fulfill reporting requirements including:

a. Initial reporting of invention.

b. Decision to retain title to invention.

c. Filing of patent protection.

d. Evidence of government support clause within patents.

e. Submission of a license confirming the government's rights.

f. Notice if the Contractor is going to discontinue the pursuit or continuance of patent protection.

g. Information related to the development and utilization of invention.

h. Permission to assign to a third party; and

i. Permission to waive domestic manufacturing requirements.

This information is used for a variety of reasons. It allows the government to identify technologies to which the government has rights to use without additional payment or licensing. This acts as a time and cost-saving mechanism to avoid unnecessary negotiating and payment. It also provides data for calculation of return on investment (ROI) from federal funding and identifies successful research programs. Thirdly, it allows the government the opportunity to timely protect inventions which the Contractor declines title or discontinues patent protection. Many agencies utilize the iEdison system, managed by NIST, to collect this information. Agencies that do not register with iEdison are required to collect this information independently.

Historically, only NIH and DOE regularly requested that Contractors submit requests for reports on the development and utilization of an invention (utilization reports) within iEdison. However, there has been an increased interest across the government in the impact of federally funded research and resulting inventions as well as compliance with the Bayh-Dole requirements, especially as it relates to domestic manufacturing requirements. As a result, the interagency working group for Bayh-Dole decided that all agencies would begin to request this information, and the questions would be amended and expanded upon so that the agencies could get a clear picture of the commercialization plans for subject inventions, what the licensing landscape looked like, what products were resulting, and where those products were being manufactured.

Another data point of particular interest across government relates to gender, and specifically how gender disparity may be present within the inventing and commercialization space. Collecting gender of the inventors within iEdison provides agencies previously unavailable data that they may use to conduct assessments under

administrative policy guidance outlined in Executive Order 13985. NIST does not anticipate that the collection of this data will significantly affect the reporting burden.

II. Method of Collection

Information will be electronically collected through the online system iEdison.

III. Data

OMB Control Number: 0693–0090.
Form Number(s): None.
Type of Review: Regular submission, Revision.
Affected Public: Business or other for-profit organizations; Not-for-profit institutions; State, Local, or Tribal government.
Estimated Number of Respondents: 3,063.
Estimated Time per Response:
Invention Records: 6 hours.
Patent Records: 3.5 hours.
Utilization Records: 5.5 hours.
Estimated Total Annual Burden Hours:
Invention Records: 18,378 hours.
Patent Records: 10,720 hours.
Utilization Records: 16,847 hours.
Estimated Total Annual Cost to Public: $0.
Respondent's Obligation: Mandatory.
Legal Authority: The Bayh-Dole Act (35 U.S.C. 18) and its implementing regulations (37 CFR 401).

IV. Request for Comments

We are soliciting public comments to permit the Department/Bureau to: (a) Evaluate whether the proposed information collection is necessary for the proper functions of the Department, including whether the information will have practical utility; (b) 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; (c) Evaluate ways to enhance the quality, utility, and clarity of the information to be collected; and (d) Minimize the reporting burden on those who are to respond, including the use of automated collection techniques or other forms of information technology.

Comments that you submit in response to this notice are a matter of public record. We will include or summarize each comment in our request to OMB to approve this ICR. 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 may 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.

Sheleen Dumas,

Department PRA Clearance Officer, Office of the Under Secretary for Economic Affairs, Commerce Department.

[FR Doc. 2023–09477 Filed 5–3–23; 8:45 am]

BILLING CODE 3510–13–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC952]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Pile Driving Training Exercises at Naval Base Ventura County, Port Hueneme

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; issuance of an incidental harassment authorization.

SUMMARY: In accordance with the regulations implementing the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that NMFS has issued an Incidental Harassment Authorization (IHA) to the United States Navy (Navy) to incidentally harass, by Level B harassment only, marine mammals during pile driving training exercises at Naval Base Ventura County, Port Hueneme (NBVC). The Navy's activities are considered military readiness activities pursuant to the MMPA, as amended by the National Defense Authorization Act for Fiscal Year 2004 (2004 NDAA).

DATES: This authorization is effective from May 1, 2023 through April 30, 2024.

FOR FURTHER INFORMATION CONTACT: Reny Tyson Moore, Office of Protected Resources, NMFS, (301) 427–8401. Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: *www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-military-readiness-activities.* In case of problems accessing these documents, please call the contact listed above.

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are proposed or, if the taking is limited to harassment, a notice of a proposed incidental harassment authorization is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other ''means of effecting the least practicable adverse impact'' on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stocks for taking for certain subsistence uses (referred to in shorthand as ''mitigation''); and requirements pertaining to the mitigation, monitoring and reporting of the takings are set forth.

The 2004 NDAA (Pub. L. 108–136) removed the ''small numbers'' and ''specified geographical region'' limitations indicated above and amended the definition of ''harassment'' as applied to a ''military readiness activity.'' The NDAA also amended the process as it relates to military readiness activities and the incidental take authorization process such that ''least practicable impact'' on such species or stock shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. Before making the required determination, the Secretary shall consult with the Department of Defense regarding personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. The activity for which incidental take of marine mammals is being requested, addressed here, qualifies as a military readiness activity. The definitions of all applicable MMPA statutory terms cited above are included in the relevant sections below.

Summary of Request

NMFS received a request from the U.S. Navy on August 18, 2021, for an IHA to take marine mammals incidental to pile driving training exercises at NBVC. NMFS provided comments on the application and the Navy resubmitted a revised application on May 11, 2022. On May 25, 2022, the Navy notified NMFS of the need to update the application to include additional activities. NMFS received the updated application on October 26, 2022. NMFS provided comments on the updated application and received a revised application from the Navy on December 5, 2022. NMFS provided additional comments on the application on December 8, 2022, and received an updated application on January 6, 2023, which was deemed adequate and complete on January 12, 2023. The Navy's request is for take of California sea lions (*Zalophus californius*) and harbor seals (*Phoca vitulina richardii*) by Level B harassment only. Neither the Navy nor NMFS expect serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

Changes were made between the publication of the notice of the proposed IHA and this notice of the final IHA. Specifically, two proposed mitigation measures were removed from the final IHA that were included in the notice of the proposed IHA (see Changes from the Proposed IHA to Final IHA for more details).

Description of Activity

The primary mission of NBVC is to provide a home port and to furnish training, administrative, and logistical support for the Naval Construction Battalions. Naval Construction Group ONE (NCG–1) is planning to execute pile driving training exercises at NBVC that are essential to construction battalion personnel prior to deployment. The specific components of each exercise may vary based on the specific training requirements for each battalion, but could include vibratory and impact pile driving, temporary pier construction, and subsequent removal of all installed materials. These are military readiness activities, as defined under the National 7 Defense Authorization Act (NDAA) of Fiscal Year 2004 (Pub. L. 108–136).

Up to four training exercises will take place during the authorization period. Each training exercise will last up to 24 days, and will include installation (12 days) and removal (12 days) of a sheet pile wall and round pile pier (see Table 1 for a summary of pile details and the estimated effort required for pile installation and removal), for a total of up to 96 days over the four training exercises. The sheet pile wall and pier construction/removal will occur during the same training evolution, but will not occur at the same time. The U.S. Navy is requesting an IHA for Level B harassment of California sea lions and harbor seals related to these activities. Level A harassment is not anticipated or requested. The IHA will be effective from May 1, 2023 through April 30, 2024.

TABLE 1—SUMMARY OF PILE DETAILS AND ESTIMATED EFFORT REQUIRED FOR PILE INSTALLATION AND REMOVAL

Pile type/shape	Size	Number of sheets/ piles	Vibratory installation/removal duration per pile/sheet (minutes)	Potential impact strikes per pile, if needed	Production rate (piles/day)		Days of installation	Days of removal
					Installation	Removal		
Steel Sheet	24-in	15	10/20	NA	3	3	5	5
Timber Pile	16-in	10	20/30	1800	2	2	5	5
H-Beam	14-in	4	20/30	1800	2	2	2	2
Project Totals		29	7.17 hours/12 hours				12	12

Each training event will occur at either Wharf 4 or Wharf D at NBVC. Wharf 4 contains two potential pile driving sites. The Wharf 4 South site is located directly in front of the Naval Facilities Engineering and Expeditionary Warfare Center Dive Locker, while the Wharf 4 East site is located along the side of the Naval Facilities Engineering and Expeditionary Warfare Center Dive Locker (Figure 1). The Wharf D site is located near the mouth of the harbor (Figure 2). The Wharf 4 locations are open to the majority of the harbor, whereas the Wharf D location is almost entirely self-contained, with only one access point from the channel leading to the harbor itself. No part of the Navy's training exercises will occur outside of Port Hueneme Harbor in the Pacific Ocean.

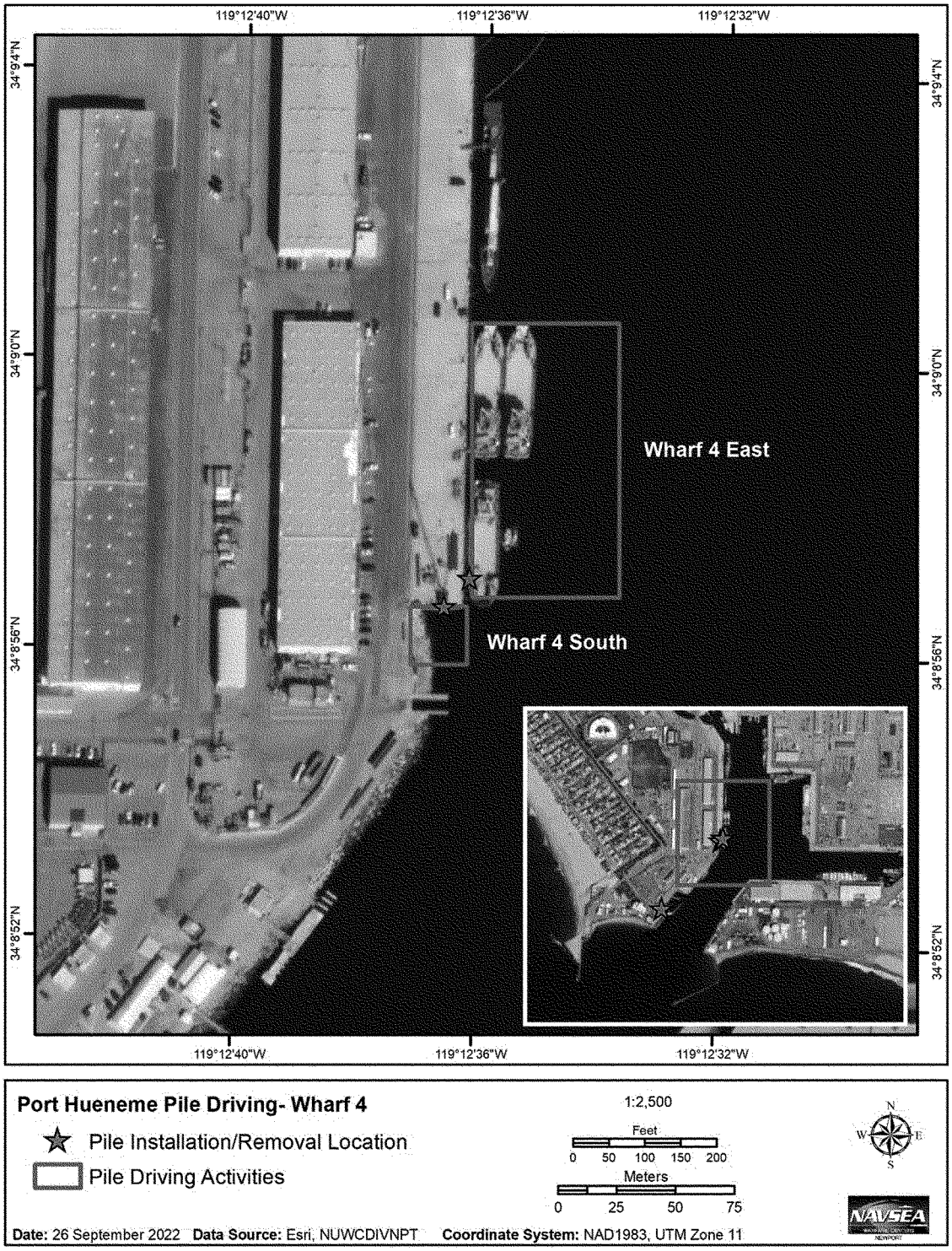

Figure 1—Action Area for Pile Driving Exercises at Wharf 4

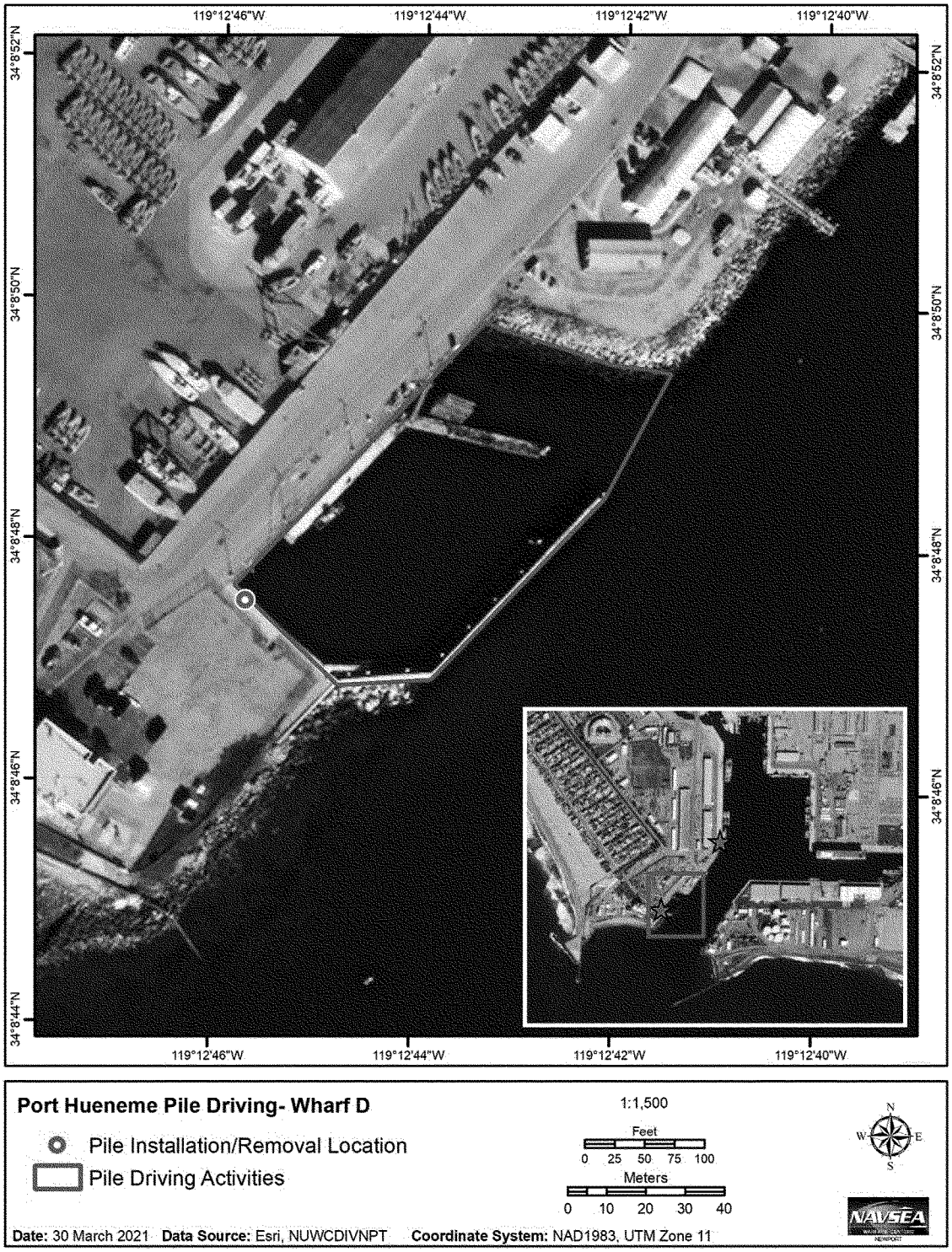

Figure 2—Action Area for Pile Driving Exercises at Wharf D

A detailed description of the Navy's planned training exercises is provided in the **Federal Register** notice for the proposed IHA (88 FR 15956, March 15, 2023). Since that time, no changes have been made to the Navy's planned training exercises. Therefore, a detailed description is not provided here. Please refer to that **Federal Register** notice for the description of the specific activity.

Comments and Responses

A notice of NMFS' proposal to issue an IHA to the Navy was published in the **Federal Register** on March 15, 2023 (88 FR 15956). That notice described, in detail, the Navy's activities, the marine mammal species that may be affected by the activities, and the anticipated effects on marine mammals. In that notice, we requested public input on the request for authorization described therein, our analyses, the proposed authorization, and any other aspect of the notice of proposed IHA, and requested that interested persons submit relevant information, suggestions, and comments. This proposed notice was

available for a 30-day public comment period.

NMFS received no public comments.

Changes From the Proposed IHA to Final IHA

Changes were made between the publication of the notice of the proposed IHA and this notice of the final IHA. Two proposed mitigation measures were removed from the final IHA that were included in the notice of the proposed IHA: (1) NMFS will approve resumes of Navy biologists who provide the training to lookouts, and (2) Lead lookouts will be selected by Navy biologists among the best performing lookouts. The Navy has indicated that due to the military structure of the Navy's planned training exercises, it is not appropriate for NMFS to approve resumes and for Navy civilians to assign active duty personnel as lookouts. Lookouts will be assigned through the proper chain of command. In addition, some typos were corrected and some minor clarifying language was added to more accurately describe the Navy's monitoring and reporting requirements.

Description of Marine Mammals in the Area of Specified Activities

Sections 3 and 4 of the application summarize available information regarding status and trends, distribution and habitat preferences, and behavior and life history of the potentially affected species. NMFS fully considered all of this information, and we refer the reader to these descriptions, referenced here, instead of reprinting the information. Additional information regarding population trends and threats may be found in NMFS' Stock Assessment Reports (SARs; *www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments*) and more general information about these species (*e.g.,* physical and behavioral descriptions) may be found on NMFS' website (*https://www.fisheries.noaa.gov/find-species*).

Table 2 lists all species or stocks for which take is expected and authorized for this action, and summarizes information related to the population or stock, including regulatory status under the MMPA and Endangered Species Act (ESA) and potential biological removal (PBR), where known. PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population (as described in NMFS' SARs). While no serious injury or mortality is anticipated or authorized here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS' stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS' U.S. Pacific SARs (*e.g.,* Carretta *et al.,* 2022). All values presented in Table 2 are the most recent available at the time of publication and are available in the 2021 SARs (Carretta *et al.,* 2022) (available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/draft-marine-mammal-stock-assessment-reports*).

TABLE 2—SPECIES LIKELY IMPACTED BY THE SPECIFIED ACTIVITIES

Common name	Scientific name	MMPA stock	ESA/MMPA status; strategic (Y/N) [1]	Stock abundance Nbest, (CV, N_{min}, most recent abundance survey) [2]	PBR	Annual M/SI [3]
Order Carnivora—Superfamily Pinnipedia						
Family Otariidae (eared seals and sea lions):						
California sea lion	*Zalophus californianus*	U.S	-,-, N	257,606 (N.A.; 233,515; 2014).	14,011	>320
Family Phocidae (earless seals):						
Harbor seal	*Phoca vitulina richardii*	California	-,-, N	30,968 (N.A.; 27,348; 2012).	1,641	43

[1] Endangered Species Act (ESA) status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

[2] NMFS marine mammal stock assessment reports online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments.* CV is coefficient of variation; N_{min} is the minimum estimate of stock abundance. In some cases, CV is not applicable (N.A.).

[3] These values, found in NMFS's SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.,* commercial fisheries, ship strike). Annual M/SI often cannot be determined precisely and is in some cases presented as a minimum value or range. A CV associated with estimated mortality due to commercial fisheries is presented in some cases.

As indicated above, the two species (with two managed stocks) in Table 2 temporally and spatially co-occur with the activity to the degree that take is reasonably likely to occur.

A detailed description of the species likely to be affected by the Navy's training exercises, including brief introductions to the species and relevant stocks as well as available information regarding population trends and threats, and information regarding local occurrence, were provided in the **Federal Register** notice for the proposed IHA (88 FR 15956, March 15, 2023); since that time, we are not aware of any changes in the status of these species and stocks; therefore, detailed descriptions are not provided here. Please refer to that **Federal Register** notice for these descriptions. Please also refer to the NMFS website (*https://www.fisheries.noaa.gov/find-species*) for generalized species accounts.

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Not all marine mammal species have equal hearing capabilities

(*e.g.,* Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007, 2019) recommended that marine mammals be divided into hearing groups based on directly measured (behavioral or auditory evoked potential techniques) or estimated hearing ranges (behavioral response data, anatomical modeling, *etc.*). Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.,* low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65 decibel (dB) threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. Marine mammal hearing groups and their associated hearing ranges are provided in Table 3.

TABLE 3—MARINE MAMMAL HEARING GROUPS

[NMFS, 2018]

Hearing group	Generalized hearing range *
Low-frequency (LF) cetaceans (baleen whales)	7 Hz to 35 kHz.
Mid-frequency (MF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz.
High-frequency (HF) cetaceans (true porpoises, *Kogia,* river dolphins, Cephalorhynchid, *Lagenorhynchus cruciger* & *L. australis*).	275 Hz to 160 kHz.
Phocid pinnipeds (PW) (underwater) (true seals)	50 Hz to 86 kHz.
Otariid pinnipeds (OW) (underwater) (sea lions and fur seals)	60 Hz to 39 kHz.

* Represents the generalized hearing range for the entire group as a composite (*i.e.,* all species within the group), where individual species' hearing ranges are typically not as broad. Generalized hearing range chosen based on ~65 dB threshold from normalized composite audiogram, with the exception for lower limits for LF cetaceans (Southall *et al.,* 2007) and PW pinniped (approximation).

The pinniped functional hearing group was modified from Southall *et al.* (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Hemilä *et al.,* 2006; Kastelein *et al.,* 2009; Reichmuth and Holt, 2013).

For more detail concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of available information.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

The effects from underwater noise from the Navy's training activities have the potential to result in Level B harassment only of marine mammals in the vicinity of the project area. The **Federal Register** notice for the proposed IHA (88 FR 15956, March 15, 2023) included a discussion of the effects of anthropogenic noise on marine mammals and the potential effects of underwater noise from the Navy's training activities on marine mammals and their habitat, therefore that information is not repeated here. Please refer to that **Federal Register** notice (88 FR 15956, March 15, 2023) for that information. No instances of serious injury or mortality are expected as a result of the planned activities.

Estimated Take

This section provides an estimate of the number of incidental takes authorized through this IHA, which will inform the negligible impact determinations.

Harassment is the only type of take expected to result from these activities. For this military readiness activity, the MMPA defines ''harassment'' as (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) Any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where the behavioral patterns are abandoned or significantly altered (Level B harassment).

Authorized takes will be by Level B harassment only, in the form of disruption of behavioral patterns and/or temporary threshold shifts (TTS) for individual marine mammals resulting from exposure to the pile driving activities. Based on the nature of the activity and the anticipated effectiveness of the mitigation measures (*i.e.,* shutdown measures) discussed in detail below in the Mitigation section, Level A harassment is neither anticipated nor authorized.

As described previously, no serious injury or mortality is anticipated authorized for this activity. Below we describe how the take numbers are estimated.

For acoustic impacts, generally speaking, we estimate take by considering: (1) acoustic thresholds above which NMFS believes the best available science indicates marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment; (2) the area or volume of water that will be ensonified above these levels in a day; (3) the density or occurrence of marine mammals within these ensonified areas; and, (4) the number of days of activities. We note that while these factors can contribute to a basic calculation to provide an initial prediction of potential takes, additional information that can qualitatively inform take estimates is also sometimes available (*e.g.,* previous monitoring results or average group size). Below, we describe the factors considered here in more detail and present the take estimates.

Acoustic Thresholds

NMFS recommends the use of acoustic thresholds that identify the received level of underwater sound above which exposed marine mammals will be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur permanent threshold shifts (PTS) of some degree (equated to Level A harassment).

Level B Harassment—Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source or exposure context (*e.g.,* frequency, predictability, duty cycle, duration of the exposure, signal-to-noise ratio, distance to the source), the environment (*e.g.,* bathymetry, other noises in the area, predators in the area), and the receiving animals (hearing, motivation, experience, demography, life stage, depth) and can be difficult to predict

(*e.g.,* Southall *et al.,* 2007, 2021, Ellison *et al.,* 2012). Based on what the available science indicates and the practical need to use a threshold based on a metric that is both predictable and measurable for most activities, NMFS typically uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS generally predicts that marine mammals are likely to be behaviorally harassed in a manner considered to be Level B harassment when exposed to underwater anthropogenic noise above root-mean-squared pressure received levels (RMS SPL) of 120 dB (referenced to 1 micropascal (re 1 μPa)) for continuous (*e.g.,* vibratory pile-driving, drilling) and above RMS SPL 160 dB re 1 μPa for non-explosive impulsive (*e.g.,* seismic airguns) or intermittent (*e.g.,* scientific sonar) sources.

The Navy's training activities includes the use of continuous (vibratory pile installation/removal) and impulsive (impact pile installation) sources, and therefore the RMS SPL thresholds of 120 and 160 dB re 1 μPa are applicable.

Level A harassment—NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0) (Technical Guidance, 2018) identifies dual criteria to assess auditory injury (Level A harassment) to five different marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive). The Navy's training exercises includes the use of impulsive (impact pile driving) and non-impulsive (vibratory pile driving/removal) sources.

These thresholds are provided in Table 4. The references, analysis, and methodology used in the development of the thresholds are described in NMFS' 2018 Technical Guidance, which may be accessed at: *www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance.*

TABLE 4—THRESHOLDS IDENTIFYING THE ONSET OF PERMANENT THRESHOLD SHIFT

Hearing group	PTS onset thresholds * (received level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1:* $L_{p,0\text{-pk,flat}}$: 219 dB; $L_{E,p,\ LF,24h}$: 1183 dB	*Cell 2:* $L_{E,p,\ LF,24h}$: 199 dB.
Mid-Frequency (MF) Cetaceans	*Cell 3:* $L_{p,0\text{-pk,flat}}$: 230 dB; $L_{E,p,\ MF,24h}$: 1185 dB	*Cell 4:* $L_{E,p,MF,24h}$: 198 dB.
High-Frequency (HF) Cetaceans	*Cell 5:* $L_{p,0\text{-pk,flat}}$: 202 dB; $L_{E,p,HF,24h}$: 155 dB	*Cell 6:* $L_{E,p,HF,24h}$: 173 dB.
Phocid Pinnipeds (PW) (Underwater)	*Cell 7:* $L_{p,0\text{-pk.flat}}$: 218 dB; $L_{E,p,PW,24h}$: 1185 dB	*Cell 8:* $L_{E,p,PW,24h}$: 201 dB.
Otariid Pinnipeds (OW) (Underwater)	*Cell 9:* $L_{p,0\text{-pk,flat}}$: 232 dB; $L_{E,p,OW,24h}$: 203 dB	*Cell 10:* $L_{E,p,OW,24h}$: 219 dB.

* Dual metric thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds are recommended for consideration.

Note: Peak sound pressure level ($L_{p,0\text{-pk}}$) has a reference value of 1 μPa, and weighted cumulative sound exposure level ($L_{E,p}$) has a reference value of 1μPa²s. In this Table, thresholds are abbreviated to be more reflective of International Organization for Standardization standards (ISO, 2017). The subscript ''flat'' is being included to indicate peak sound pressure are flat weighted or unweighted within the generalized hearing range of marine mammals (*i.e.,* 7 Hz to 160 kHz). The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The weighted cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these thresholds will be exceeded.

Ensonified Area

Here, we describe operational and environmental parameters of the activity that are used in estimating the area ensonified above the acoustic thresholds, including source levels and transmission loss coefficient.

Sound Source Levels of Training Exercises—The intensity of pile driving sounds is greatly influenced by factors such as the type of piles, hammers, and the physical environment in which the activity takes place. The Navy evaluated sound source level measurements available for certain pile types and sizes from similar environments to determine reasonable source levels likely to result from the pile driving activities. The Navy determined that data from the California Department of Transportation (CALTRANS) (2020) and Naval Facilities Engineering Command Southwest (NAVFAC SW) (2020) provided the most applicable acoustic source data to use as proxy source levels for this action. The Navy proposed, and NFMS agrees, that source level data from NAVFAC SW (2020) be used as proxy source levels for vibratory driving of 24-inch (61 centimeter) sheet piles because this reference provided noise data from the site of the training exercise (*i.e.,* data were recorded from Wharf 4 at NBVC). The Navy proposed, and NMFS agrees, that source level data from CALTRANS (2020) be used for all other pile sizes and installation methods as this reference provided data for the same or similar pile sizes and installation techniques, despite source levels having been recorded at different locations than the site of the Navy's training exercises (Table 5). Details are described below. Note that the source levels discussed here and provided in Table 5 represent the SPL referenced at a distance of 10 m from the source unless otherwise specified. Further, the Navy and NMFS assume that source levels attributed to vibratory removal of piles are equivalent or less than source levels attributed to the vibratory installation of pile.

Vibratory or impact data is not available for 16-inch timber piles. Therefore, the Navy proposed, and NMFS agrees, that source levels for impact driving of 14-inch timber piles at the Ballena Bay in Alameda, California be used as a proxy values for impact driving 16-inch timber piles (CALTRANS, 2020) (Table 5). For vibratory driving of 16-inch timber piles, the Navy proposed, and NMFS concurs, to use source level data from vibratory driving of unknown sized timber piles used at the Norfolk Naval Station in Norfolk, Virginia (CALTRANS, 2020; Illingworth & Rodkin, 2015) as proxy values for the training exercises (Table 5).

Source level data for the installation and removal of 14-inch steel H-beam piles is limited. The Navy proposed, and NMFS agrees, that source levels for 15-inch steel H-been piles installed at Ballena Isle Marina in Alameda, California be used as proxy values for

14-inch steel H-beam piles during impact driving. This decision is based upon the piles similar size, the use of a vertical hammer placement (as opposed to battering at an angle), and the similarity in water depths at the action sites (Table 5). The Navy also proposed, and NMFS agrees, that source levels for 10-inch steel H-beam piles installed during the San Rafeal Canal project in San Rafeal, California (CALTRANS, 2020) be used as proxy values for vibratory driving of 14-inch steel H beam piles during vibratory driving (Table 5).

TABLE 5—SUMMARY OF UNATTENUATED IN-WATER PILE DRIVING SOURCE LEVELS

Pile driving method	Pile description	Peak SPL (dB re 1 μPa)	RMS SPL (dB re 1 μPa)	SEL_{ss} (dB re 1 μPa^2 sec)
Impact	Timber (16-in)	180	170	160
	Steel H beam (14-in)	195	180	170
Vibratory (installation and removal)	Timber (16-in)		162	
	Steel sheet (24-in)		[1] 159	
	Steel H beam (14-in)		147	

[1] The RMS SPL for vibratory installation of 24-inch steel sheets was recorded 11 m from the source.

Level B Harassment Zones—Transmission loss (TL) is the decrease in acoustic intensity as an acoustic pressure wave propagates out from a source. TL parameters vary with frequency, temperature, sea conditions, current, source and receiver depth, water depth, water chemistry, and bottom composition and topography. The general formula for underwater TL is:

TL = B * log10 (R1/R2),

Where:

B = transmission loss coefficient (assumed to be 15)

R1 = the distance of the modeled SPL from the driven pile, and

R2 = the distance from the driven pile of the initial measurement.

This formula neglects loss due to scattering and absorption, which is assumed to be zero here. The degree to which underwater sound propagates away from a sound source is dependent on a variety of factors, most notably the water bathymetry and presence or absence of reflective or absorptive conditions including in-water structures and sediments. The recommended TL coefficient for most nearshore environments is the practical spreading value of 15. This value results in an expected propagation environment that will lie between spherical and cylindrical spreading loss conditions, which is the most appropriate assumption for the Navy's training exercises in the absence of specific modelling.

All Level B harassment isopleths are reported in Table 7 considering RMS source levels for impact and vibratory pile driving, respectively. It should be noted that based on the geography of the NBVC and the surrounding land masses, port infrastructure, and the shoreline, the Level B harassment isopleths will reach a maximum of 790 m (2,592 ft) for Wharf 4 South, 795 m (2,601 ft) for Wharf 4 East, and 655 m (2,149 ft) for Wharf D (See Figure 6–1, 6–2, and 6–3 in the Navy's application). Although it is known that there can be leakage or diffraction around such barriers, the assumption herein is that any impervious barriers will contain all pile driving noise associated with the Navy's planned training exercises.

Level A Harassment Zones—The ensonified area associated with Level A harassment is more technically challenging to predict due to the need to account for a duration component. Therefore, NMFS developed an optional User Spreadsheet tool to accompany the Technical Guidance that can be used to relatively simply predict an isopleth distance for use in conjunction with marine mammal density or occurrence to help predict potential takes. We note that because of some of the assumptions included in the methods underlying this optional tool, we anticipate that the resulting isopleth estimates are typically going to be overestimates of some degree, which may result in an overestimate of potential take by Level A harassment. However, this optional tool offers the best way to estimate isopleth distances when more sophisticated modeling methods are not available or practical. For stationary sources, such as vibratory and impact pile driving, the optional User Spreadsheet tool predicts the distance at which, if a marine mammal remained at that distance for the duration of the activity, it will be expected to incur PTS. Inputs used in the optional User Spreadsheet tool are reported in Table 6, and the resulting estimated isopleths are reported in Table 7.

TABLE 6—NMFS USER SPREADSHEET INPUTS

	Vibratory pile driving			Impact pile driving	
	16-inch timber piles	14-inch steel H beam	24-inch steel sheet	16-inch timber piles	14-inch steel H beam
Spreadsheet Tab Used.	A.1) Non-Impul, Stat, Cont.	A.1) Non-Impul, Stat, Cont.	A.1) Non-Impul, Stat, Cont.	E.1) Impact pile driving.	E.1) Impact pile driving.
Source Level (SPL)	162 dB RMS	147 dB RMS	159 dB RMS	160 dB SEL	170 dB SEL.
Transmission Loss Coefficient.	15	15	15	15	15.
Weighting Factor Adjustment (kHz).	2.5	2.5	2.5	2	2.
Time to install/remove single pile (minutes).	30	30	20.		
Number of strikes per pile.				1800	1800.

TABLE 6—NMFS USER SPREADSHEET INPUTS—Continued

	Vibratory pile driving			Impact pile driving	
	16-inch timber piles	14-inch steel H beam	24-inch steel sheet	16-inch timber piles	14-inch steel H beam
Piles to install/remove per day.	2	2	3	2	2.
Distance of sound pressure level measurement (m).	10	10	11	10	10.

TABLE 7—DISTANCES TO LEVEL A HARASSMENT, BY HEARING GROUP, AND LEVEL B HARASSMENT THRESHOLDS PER PILE TYPE AND PILE DRIVING METHOD

Activity	Pile description	Piles per day	Level Aharassment distance (m)		Level A harassment areas (km²) for all hearing groups [1]	Level B harassment distance (m) all hearing groups	Level B harassment areas (km²) for all hearing groups [1]
			PW	OW			
Vibratory Installation/Removal	16-inch Timber Piles	3	4.8	0.3	<0.1	[2] 6,310	<0.3
	14-inch Steel H Beam	2	0.5	0	<0.1	631	<0.3
	24-inch Steel Sheet	3	3.4	0.2	<0.1	[2] 4,379	<0.3
Impact Installation/Removal	16-inch Timber Piles	3	36.8	2.7	<0.1	47	<0.1
	14-inch Steel H-Beam	2	170.6	12.4	<0.1	216	<0.1

[1] Harassment areas have been truncated where appropriate to account for land masses.
[2] The maximum harassment distances are approximately 790 m (2,592 ft) for Wharf 4 South, 795 m (2,601 ft) for Wharf 4 East, and 655 m (2,149 ft) for Wharf D.

Marine Mammal Occurrence and Take Estimation

In this section we provide information about the occurrence of marine mammals, including density or other relevant information that will inform the take calculations. Here, we also describe how the occurrence information provided is synthesized to produce a quantitative estimate of the take that is reasonably likely to occur and which is authorized.

California Sea Lion

No density or abundance numbers exist for California sea lions in the action area. Therefore, to quantitatively assess exposure of marine mammals to noise from pile driving conducted as part of the Navy's training exercises, the Navy used estimates derived from recent monitoring efforts to determine the number of animals potentially exposed in the Level A and Level B harassment zones in any one day of pile driving or extraction.

NBVC biologists have been conducting opportunistic surveys of California sea lions hauled out at Wharf D somewhat regularly since 2010. California sea lions have been observed regularly hauling out on structures (*i.e.,* docks, barges, and boats) near Wharf D, sometimes in large numbers. They often crowd onto these structures, making it difficult for observers to determine the total number of sea lions present. Some of the counts at Wharf D include pinnipeds present in the water, which could also include harbor seals. California sea lions are the predominant pinniped species at Port Hueneme Harbor, so the assumption is that nearly all animals present will be California sea lions. The number of California sea lions present in the action area at Wharf D is variable by month and by year. The maximum number of California sea lions counted at Wharf D during an individual survey day was 342 (January 15, 2021). No other pinniped species have been observed at Wharf D during these surveys. While these count data provide a snapshot of pinniped presence in the action area, they do not provide rate of turnover over time of different pinnipeds present in the action area; nor do they provide long-term sea lion presence patterns.

Since the fall of 2020, there have also been efforts to count pinnipeds in the water near Wharf 4; however, these monitoring efforts have been sporadic, taking place for an hour at a time from a boat launch just south of Wharf 4. Monitoring efforts have observed anywhere from 0 to 85 sea lions in an hour (see Figure 6–4 in the Navy's application). Additionally, the same individuals may have been observed multiple times within the survey period. Therefore, the number of California sea lions assumed to be present in the action area at Wharf 4 is variable.

Based on these data, the Navy conservatively estimates that 342 California sea lions (*i.e.,* the maximum number of California sea lions observed in the action area on a single day) may be present in the action area each day and be behaviorally harassed during the 96 days of pile driving planned as part of the Navy's training exercises. Therefore, the Navy requests, and NMFS authorizes, 36,960 instances of take by Level B harassment for California Sea Lions. No take Level A harassment is anticipated or authorized for California sea lions due to the small Level A harassment zones (Table 7) and implementation of shutdown zones, which will be larger than Level A harassment isopleths, as described below in the Mitigation section.

Harbor Seals

No density or abundance numbers exist for harbor seals in the action area. Harbor seals have only been observed by NBVC biologists near Wharf 4; no harbor seals have been detected at Wharf D. The maximum number of harbor seals seen over the course of an hour of observation was five seals. This was 5.88 percent of the maximum number of California sea lions observed at Wharf D (N = 85). Therefore, to account for the potential for harbor seals in the action area, the Navy assumes that 5.88 percent of the maximum number of California sea lions observed animals at Wharf D (5.88 percent of 342, or 20.1 [rounded up to 21] animals per day) are harbor seals.

Based on these data, the Navy conservatively estimates that 21 harbor seals may be present in the action area each day and be behaviorally harassed during the 96 days of pile driving schedule as part of the Navy's training

exercises. Therefore, the Navy requests, and NMFS authorizes, 2,016 instances of take by Level B harassment for harbor seals. No take by Level A harassment is anticipated or authorized for harbor seals. While the Level A harassment zone for impact pile driving 14-inch (36-centimeter) steel H-beams is 170.6 m, harbor seals are considered rare in the action area (Department of the Navy, 2019) minimizing the likelihood of Level A harassment take. In addition, measures described below in the Mitigation section, including shutdown measures and the implementation of lookouts at stations where the entire Level B harassment zones are observable, will minimize the likelihood that harbor seals will be in this larger zone during impact driving of steel H-beams and that they will incur PTS before pile driving activities could be shut down. Therefore, NMFS agrees with the Navy and is not authorizing any takes by Level A harassment takes for harbor seals during the Navy's training exercises.

In summary, the total amount of Level A harassment and Level B harassment authorized for each marine mammal stock is presented in Table 8.

TABLE 8—AMOUNT OF TAKE AS A PERCENTAGE OF STOCK ABUNDANCE, BY STOCK AND HARASSMENT TYPE

Species	Stock	Authorized take			Percent of stock
		Level A	Level B	Total	
California Sea Lion	U.S.	0	36,960	36,960	14.3
Harbor Seal	California	0	2,016	2,016	6.51

Mitigation

In order to issue an IHA under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to the activity, and other means of effecting the least practicable impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting the activity or other means of effecting the least practicable adverse impact upon the affected species or stocks, and their habitat (50 CFR 216.104(a)(11)).

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, as well as subsistence uses where applicable, NMFS considers two primary factors:

(1) The manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned), the likelihood of effective implementation (probability implemented as planned), and;

(2) The practicability of the measures for applicant implementation, which may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

The Navy must employ the following standard mitigation measures, as included in the IHA:

- Conduct briefings between supervisors and trainees, the marine mammal monitoring team, and Navy staff prior to the start of all in-water pile driving activity, and when new personnel join the work, to ensure that responsibilities, communication procedures, marine mammal monitoring protocols, and operational procedures are clearly understood.
- During all in-water work other than pile driving (*e.g.,* pile placement, boat use), in order to prevent injury from physical interaction with construction equipment, a shutdown zone of 10 m (33 ft) will be implemented. If a marine mammal comes within 10 m (33 ft), operations shall cease and vessels shall reduce speed to the minimum level required to maintain steerage and safe working conditions. If human safety is at risk, the in-water activity will be allowed to continue until it is safe to stop.
- The Navy must establish shutdown zones for all for in-water pile driving activities. The purpose of a shutdown zone is generally to define an area within which shutdown of activity will occur upon sighting of a marine mammal (or in anticipation of an animal entering the defined area). Shutdown zones will vary based on the type of pile installation/removal activity (See Table 9). Here, shutdown zones are larger than the calculated Level A harassment isopleths shown in Table 7. The placement of lookouts during all pile driving activities (described in detail in the Monitoring and Reporting section) will ensure that the entirety of all shutdown zones and Level A harassment zones are visible during pile installation and removal.

TABLE 9—SHUTDOWN ZONES DURING IN-WATER PILE DRIVING ACTIVITIES

Activity	Pile description	Distance (m)	
		PW	OW
Vibratory Installation/Removal	16-inch Timber Piles	15	15
	14-inch Steel H Beam	15	15
	24-inch Steel Sheet	15	15
Impact Installation	16-inch Timber Piles	40	40
	14-inch Steel H Beam	175	175

• The Navy must delay or shutdown all in-water pile driving activities should an animal approach or enter the appropriate shutdown zone. The Navy may resume in-water pile driving activities after one of the following conditions has been met: (1) the animal is observed exiting the shutdown zone; (2) the animal is thought to have exited the shutdown zone based on a determination of its course, speed, and movement relative to the pile driving location; or (3) the shutdown zone has been clear from any additional sightings for 15 minutes.

• The Navy shall employ lookouts trained in marine mammal identification and behaviors to monitor marine mammal presence in the action area. Requirements for numbers and locations of observers will be based on hammer type, pile material, and Seabees training location as described in Section 5 of the IHA. Lookouts must track marine mammals observed anywhere within their visual range relative to in-water training activities, and estimate the amount of time a marine mammal spends within the Level A or Level B harassment zones while pile driving activities are underway. The Navy must monitor the project area, including the Level B harassment zones, to the maximum extent possible based on the required number of lookouts, required monitoring locations, and environmental conditions. For all pile driving and removal activities, at least one lookout must be used.

• The placement of the lookouts during all pile driving and removal activities must ensure that the entire applicable shutdown zones are visible during all in-water pile installation and removal. One observer must be placed in a position to implement shutdown/delay procedures, when applicable, by notifying the hammer operator of a need for a shutdown of pile driving or removal.

• Prior to the start of pile driving or removal, the shutdown zone(s) must be monitored for a minimum of 30 minutes to ensure that they are clear of marine mammals (*i.e.,* pre-clearance monitoring). Pile driving will only commence once observers have declared the shutdown zone(s) are clear of marine mammals. Monitoring must also take place for 30 minutes post-completion of pile driving.

• If in-water work ceases for more than 30 minutes, the Navy must conduct pre-clearance monitoring of both the Level B harassment zone and shutdown zone.

• Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead lookout to determine that the shutdown zones indicated in Table 9 are clear of marine mammals. Pile driving may commence following 30 minutes of observation when the determination is made that the shutdown zones are clear of marine mammals.

• The Navy must use soft start techniques when impact pile driving. Soft start requires contractors to provide an initial set of three strikes at reduced energy, followed by a 30 second waiting period, then two subsequent reduced energy strike sets. A soft start must be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer. Soft starts will not be used for vibratory pile installation and removal. Lookouts shall begin observing for marine mammals 30 minutes before ''soft start'' or in-water pile installation or removal begins.

• For any marine mammal species for which take by Level B harassment has not been requested or authorized, in-water pile installation/removal will shut down immediately when the animals are sighted.

• If take by Level B harassment reaches the authorized limit for an authorized species, pile installation will be stopped as these species approach the Level B harassment zone to avoid additional take of them.

Based on our evaluation of the applicant's described measures, NMFS has determined that the mitigation measures provide the means of effecting the least practicable impact on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Monitoring and Reporting

In order to issue an IHA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth requirements pertaining to the monitoring and reporting of such taking. The MMPA implementing regulations at 50 CFR 216.104(a)(13) indicate that requests for authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present while conducting the activities. Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

• Occurrence of marine mammal species or stocks in the area in which take is anticipated (*e.g.,* presence, abundance, distribution, density);

• Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) action or environment (*e.g.,* source characterization, propagation, ambient noise); (2) affected species (*e.g.,* life history, dive patterns); (3) co-occurrence of marine mammal species with the action; or (4) biological or behavioral context of exposure (*e.g.,* age, calving or feeding areas);

• Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;

• How anticipated responses to stressors impact either: (1) long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;

• Effects on marine mammal habitat (*e.g.,* marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat); and,

• Mitigation and monitoring effectiveness.

Visual Monitoring

Monitoring must be conducted by qualified lookouts with support from Navy biologists, in accordance with the following:

• Navy biologists will train and certify lookouts in accordance with the mitigation, monitoring and reporting requirements of the issued IHA;

• All lookouts will maintain contact via either handheld communication devices or flags to signal sightings and shutdowns;

• Lookouts shall be placed at vantage points to monitor for marine mammals and implement shutdown/delay procedures when applicable by calling for the shutdown to the hammer operator;

• The Lead lookout will be located within auditory range of the pile driving team and will have primary responsibility for calling activity shutdowns;

• Lookouts shall use a hand-held global positioning device (GPS) device, rangefinder, visual reference points, or marker buoy to verify the required monitoring distance from the project site;

• Monitoring shall occur in all-weather until training has concluded for the day;

• Lookouts must scan the waters within the Level A harassment and Level B harassment zones using binoculars (10x42 or similar) and or the naked eye and make visual observations of marine mammals present; and

• Lookouts must record all observations of marine mammals as described in the Section 5 of the IHA, regardless of distance from the pile being driven. Lookouts shall document any behavioral reactions in concert with distance from piles being driven or removed.

Lookouts must have the following additional qualifications:

• Visual acuity in both eyes (correction is permissible) sufficient for discernment of moving targets at the water's surface with ability to estimate target size and distance; use of binoculars may be necessary to correctly identify the target;

• Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;

• Writing skills sufficient to prepare a report of observations including but not limited to the number and species of marine mammals observed; dates and times when in-water construction activities were conducted; dates, times, and reason for implementation of mitigation (or why mitigation was not implemented when required); and marine mammal behavior; and

• Ability to communicate orally, by radio or in person, with project personnel to provide real-time information on marine mammals observed in the area as necessary.

Reporting

The Navy must submit a draft marine mammal monitoring report to NMFS within 90 days after the completion of pile driving training activities, or 60 days prior to a requested date of issuance of any future IHAs for projects at the same location, whichever comes first. NMFS will provide comments within 30 days after receiving the draft report, and the Navy will address the comments and submit revisions within 30 days of receipt. If no comments are received from NMFS within 30 days, the draft report will be considered as final.

The draft and final marine mammal monitoring reports must be submitted to *PR.ITP.MonitoringReports@noaa.gov* and *ITP.tyson.moore@noaa.gov.* The reports shall include an overall description of work completed, a narrative regarding marine mammal sightings, and associated data sheets. Specifically, the reports must include:

• Dates and times (begin and end) of all marine mammal monitoring;

• Training activities occurring during each daily observation period, including the number and type of piles driven or removed and by what method (*i.e.,* impact or vibratory) and the total equipment duration for vibratory installation and removal for each pile or estimated total number of strikes for each pile for impact driving;

• Lookout locations during marine mammal monitoring;

• Environmental conditions during monitoring periods (at beginning and end of lookout shift and whenever conditions change significantly), including Beaufort sea state and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon, and estimated observable distance;

• Description of any deviation from initial proposal in pile numbers, pile types, average driving times, *etc.;*

• Brief description of any impediments to obtaining reliable observations during training periods; and

• Description of any impediments to complying with the aforementioned mitigation measures.

Lookouts must record all incidents of marine mammal occurrence in the area in which take is anticipated regardless of distance from activity, and shall document any behavioral reactions in concert with distance from piles being driven or removed. Specifically, lookouts must record the following:

• Name of lookout who sighted the animal(s) and lookout location and activity at time of sighting;

• Time of sighting;

• Identification of the animal(s) (*e.g.,* genus/species, lowest possible taxonomic level, or unidentified), lookout confidence in identification, and the composition of the group if there is a mix of species;

• Distance and bearing of each marine mammal observed relative to the pile being driven for each sighting (if pile driving was occurring at time of sighting);

• Estimated number of animals (min/max/best estimate);

• Estimated number of animals by cohort (adults, juveniles, neonates, group composition, sex class, *etc.*);

• Animal's closest point of approach and estimated time spent within the harassment zone;

• Description of any marine mammal behavioral observations (*e.g.,* observed behaviors such as feeding or traveling), including an assessment of behavioral responses thought to have resulted from the activity (*e.g.,* no response or changes in behavioral state such as ceasing feeding, changing direction, flushing, or breaching);

• Number of marine mammals detected within the harassment zones and shutdown zones, by species; and

• Detailed information about any implementation of any mitigation triggered (*e.g.,* shutdowns and delays), a description of specific actions that ensued, and resulting changes in behavior of the animal(s), if any.

Reporting Injured or Dead Marine Mammals

In the event that personnel involved in the activities discover an injured or dead marine mammal, the IHA-holder must immediately cease the specified activities and report the incident to the Office of Protected Resources (OPR) (*PR.ITP.MonitoringReports@noaa.gov; itp.tysonmoore@noaa.gov*) and to the West Coast Regional Stranding Coordinator (1–866–767–6114) as soon as feasible. The incident report must include the following information:

• Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);

• Species identification (if known) or description of the animal(s) involved;

• Condition of the animal(s) (including carcass condition if the animal is dead);

• Observed behaviors of the animal(s), if alive;

• If available, photographs or video footage of the animal(s); and

• General circumstances under which the animal was discovered.

If the death or injury was clearly caused by the specified activity, the Navy must immediately cease the specified activities until NMFS is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the IHA. The Navy must not resume their activities until notified by NMFS that they can continue.

Negligible Impact Analysis and Determination

NMFS has defined negligible impact as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.,* population-

level effects). An estimate of the number of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be ''taken'' through harassment, NMFS considers other factors, such as the likely nature of any impacts or responses (*e.g.,* intensity, duration), the context of any impacts or responses (*e.g.,* critical reproductive time or location, foraging impacts affecting energetics), as well as effects on habitat, and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS' implementing regulations (54 FR 40338, September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the baseline (*e.g.,* as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

To avoid repetition, the discussion of our analysis applies to both California sea lions and harbor seals, given that the anticipated effects of this activity on these different marine mammal stocks are expected to be similar. There is little information about the nature or severity of the impacts, or the size, status, or structure of any of these species or stocks that will lead to a different analysis for this activity.

NMFS has identified key factors which may be employed to assess the level of analysis necessary to conclude whether potential impacts associated with a specified activity should be considered negligible. These include (but are not limited to) the type and magnitude of taking, the amount and importance of the available habitat for the species or stock that is affected, the duration of the anticipated effect to the species or stock, and the status of the species or stock.

NMFS does not anticipate that serious injury or mortality will occur as a result of the Navy's planned activity given the nature of the activity, even in the absence of required mitigation. Pile driving activities associated with the Navy's pile driving training exercises, as outlined previously, have the potential to disturb or displace marine mammals. Specifically, the specified activities may result in take, in the form of Level B harassment, incidental to underwater sounds generated from pile driving. Potential takes could occur if individuals are present in zones ensonified above the thresholds for Level B harassment, identified above, while activities are underway. Level A harassment is not anticipated or authorized, as described in the Estimated Take section, given the construction method and the implementation of the planned mitigation measures, including soft start measures during impact pile driving and shutdown zones.

Vibratory and impact hammers will be the primary methods of installation. Vibratory pile driving produces lower SPLs than impact pile driving and will be the predominant construction method used during training (Table 1). The rise time of the sound produced by vibratory pile driving is slower, reducing the probability and severity of injury. Impact pile driving produces short, sharp pulses with higher peak levels and much sharper rise time to reach those peaks. When impact pile driving is used, implementation of soft start and shutdown zones will significantly reduce any possibility of injury. Given sufficient ''notice'' through use of soft starts (for impact driving), marine mammals are expected to move away from a sound source prior to it becoming potentially injurious. The Navy will use at least one lookout stationed strategically to increase detectability of marine mammals, enabling a high rate of success in implementation of shutdowns to avoid injury.

Exposures to elevated sound levels produced during pile driving and removal in NBVC may cause behavioral disturbance of some individuals, however behavioral responses of marine mammals are expected to be mild, short term, and temporary. The Navy's activities and associated impacts will occur within a limited, confined area of the stocks' range. The project area is concentrated within two wharfs and the Level B harassment zones will be truncated by land. Given that pile driving and removal will occur for only short durations (*i.e.,* four training sessions lasting up to 24 days each) on nonconsecutive days, any harassment occurring will be temporary. Pinnipeds swim, dive, mill, and haul out in and around Port Hueneme, but there is no data regarding the rate of turnover over time of different pinnipeds present in the action are. Further, there is no information regarding long-term pinniped presence patterns. Due to the nature of the training exercise, we can presume that some individual harbor seals and California sea lions will be repeatedly taken. Repeated, sequential exposure to pile driving noise over a long duration could result in more severe impacts to individuals that could affect a population; however, the number of non-consecutive pile driving days for this project means that these types of impacts are not anticipated.

Effects on individuals that are taken by Level B harassment, as enumerated in the Estimated Take section, on the basis of reports in the literature as well as monitoring from other similar activities, will likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring) (*e.g.,* Thorson and Reyff, 2006). Marine mammals within the Level B harassment zones may not show any visual cues they are disturbed by activities or they could become alert, avoid the area, leave the area, or display other mild responses that are not observable, such as changes in vocalization patterns. Most likely, individuals will simply move away from the sound source and be temporarily displaced from the areas of pile driving, although even this reaction has been observed primarily only in association with impact pile driving. The pile driving activities analyzed here are similar to, or less impactful than, numerous other construction activities conducted in Southern California, which have taken place with no known long-term adverse consequences from behavioral harassment (*e.g.,* 86 FR 73247, December 27, 2021; 87 FR 65578, October 31, 2022). Level B harassment will be reduced to the level of least practicable adverse impact through use of mitigation measures described herein and, if sound produced by project activities is sufficiently disturbing, animals are likely to simply avoid the area while the activity is occurring. While both California sea lions and harbor seals have been observed in the NVBC, they are frequently observed along the nearshore waters of Southern California and have been observed hauling out outside the mouth of Port Hueneme Harbor (Department of the Navy, 2019) suggesting they have available habitat outside of the NBVC to use while the activity is occurring. While vibratory pile driving associated with the project may produce sounds above ambient noise, the project site itself is located in an industrialized port, the entire ensonified area is within in the NBVC, and sounds produced by the activities are anticipated to quickly become indistinguishable from other background noise in the port as they attenuate to near ambient SPLs moving away from the project site. Therefore, we expect that animals disturbed by

project sound will simply avoid the area and use more-preferred habitats.

Additionally, and as noted previously, some subset of the individuals that are behaviorally harassed could also simultaneously incur some small degree of TTS for a short duration of time. Because of the small degree anticipated, though, any TTS potentially incurred here will not be expected to adversely impact individual fitness, let alone annual rates of recruitment or survival.

More generally, there are no known calving or rookery grounds within the project area. Because the Navy's activities could occur during any season, takes may occur during important feeding times. However, the project area represents a small portion of available foraging habitat and impacts on marine mammal feeding for all species should be minimal.

The project also is not expected to have significant adverse effects on affected marine mammal habitat. The project activities will not modify existing marine mammal habitat for a significant amount of time. Impacts to the immediate substrate are anticipated, but these will be limited to minor, temporary suspension of sediments, which could impact water quality and visibility for a short amount of time but which will not be expected to have any effects on individual marine mammals. Any impacts on marine mammal prey that will occur during the Navy's planned activity will have, at most, short-term effects on foraging of individual marine mammals, and likely no effect on the populations of marine mammals as a whole. The activities may cause some fish to temporarily leave the area of disturbance, thus temporarily impacting marine mammal foraging opportunities in a limited portion of the foraging range. However, because of the short duration of the activities and the small area of the habitat that may be affected, the impacts to marine mammal habitat are not expected to cause significant or long-term negative consequences. Indirect effects on marine mammal prey during the construction are expected to be minor, and these effects are unlikely to cause substantial effects on marine mammals at the individual level, with no expected effect on annual rates of recruitment or survival. Overall, the area impacted by the project is very small compared to the available surrounding habitat, and does not include habitat of particular importance.

It is unlikely that minor noise effects in a small, localized area of habitat will have any effect on the stocks' annual rates of recruitment or survival. In combination, we believe that these factors, as well as the available body of evidence from other similar activities, demonstrate that the potential effects of the specified activities will have only minor, short-term effects on individuals. The specified activities are not expected to impact rates of recruitment or survival and will, therefore, not result in population-level impacts.

In summary and as described above, the following factors primarily support negligible impact determinations for the affected stocks of California sea lions and harbor seals that the impacts resulting from this activity are not expected to adversely affect any of the species or stocks through effects on annual rates of recruitment or survival:

- No serious injury or mortality is anticipated or authorized;
- Take by Level A harassment of California sea lions and harbor seals is not anticipated or authorized;
- The Navy will implement mitigation measures including soft starts for impact pile driving and shutdown zones to minimize the numbers of marine mammals exposed to injurious levels of sound, and to ensure that take by Level A harassment does not occur;
- The anticipated incidents of Level B harassment consist of, at worst, temporary modifications in behavior or TTS that will not result in fitness impacts to individuals;
- The specified activity and ensonification area is very small relative to the overall habitat ranges of all species and does not include habitat areas of special significance (Biologically Important Areas or ESA-designated critical habitat);
- The intensity of anticipated takes by Level B harassment is relatively low for all stocks and will not be of a duration or intensity expected to result in impacts on reproduction or survival; and
- The presumed efficacy of the mitigation measures in reducing the effects of the specified activity to the level of least practicable adverse impact.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the monitoring and mitigation measures, NMFS finds that the total marine mammal take from the Navy's activity will have a negligible impact on all affected marine mammal species or stocks.

Unmitigable Adverse Impact Analysis and Determination

There are no relevant subsistence uses of the affected marine mammal stocks or species implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks will not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act

Section 7(a)(2) of the Endangered Species Act of 1973 (ESA, 16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. To ensure ESA compliance for the issuance of IHAs, NMFS consults internally whenever we propose to authorize take for endangered or threatened species.

No incidental take of ESA-listed species is authorized or expected to result from this activity. Therefore, NMFS has determined that formal consultation under section 7 of the ESA is not required for this action.

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must review the proposed action (*i.e.,* the issuance of an IHA) and alternatives with respect to potential impacts on the human environment. This action is consistent with categories of activities identified in Categorical Exclusion B4 (IHAs with no anticipated serious injury or mortality) of the Companion Manual for NOAA Administrative Order 216–6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that will preclude this categorical exclusion. Accordingly, NMFS has determined that the issuance of the IHA qualifies to be categorically excluded from further NEPA review.

Authorization

NMFS has issued an IHA to the Navy for the potential harassment of two marine mammal species incidental to pile driving training exercises at NBVC, which includes the previously explained mitigation, monitoring, and reporting.

Dated: April 28, 2023.

Kimberly Damon-Randall,

Director, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 2023–09397 Filed 5–3–23; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC589]

Atlantic Highly Migratory Species; Essential Fish Habitat 5-Year Review

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of availability; request for comments.

SUMMARY: NMFS announces the availability of the Draft Atlantic Highly Migratory Species (HMS) Essential Fish Habitat (EFH) 5-Year Review (Draft HMS EFH 5-Year Review). The purpose of the Draft HMS EFH 5-Year Review is to gather relevant new information and determine whether modifications to existing EFH descriptions and designations are warranted, in compliance with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and implementing regulations. If EFH modifications are warranted, an amendment to the 2006 Consolidated Atlantic HMS Fishery Management Plan (2006 Consolidated HMS FMP) may be initiated.

DATES: Written comments must be received by July 3, 2023.

ADDRESSES: Comments may be submitted electronically via the Federal e-Rulemaking Portal. Go to *https://www.regulations.gov* and enter ''NOAA–NMFS–2022–0036'' 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* 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).

Electronic copies of information related to the Draft HMS EFH 5-Year Review, including the Draft HMS EFH 5-Year Review, may be obtained on the HMS Management Division website at: *https://www.fisheries.noaa.gov/action/essential-fish-habitat-5-year-review-0.*

FOR FURTHER INFORMATION CONTACT: Jennifer Cudney, *jennifer.cudney@noaa.gov,* at 727–824–5399, or Ann Williamson, *ann.williamson@noaa.gov,* at 301–427–8503.

SUPPLEMENTARY INFORMATION: Atlantic HMS fisheries (tunas, billfish, swordfish, and sharks) are managed under the authority of the Magnuson-Stevens Act (16 U.S.C. 1801 *et seq.*) and the Atlantic Tunas Convention Act (ATCA; 16 U.S.C. 971 *et seq.*). The 2006 Consolidated HMS FMP and its amendments are implemented by regulations at 50 CFR part 635.

The Magnuson-Stevens Act includes provisions concerning the identification and conservation of EFH (16 U.S.C. 1801 *et seq.*). EFH is defined in 50 CFR 600.10 as ''those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.'' NMFS must identify and describe EFH, minimize to the extent practicable the adverse effects of fishing on EFH, and identify other actions to encourage the conservation and enhancement of EFH (§ 600.815(a)). EFH maps are presented online in the NMFS EFH Mapper (*https://www.habitat.noaa.gov/apps/efhmapper/*). The most recently available EFH shapefiles may be downloaded from the EFH Data Inventory (*https://www.habitat.noaa.gov/protection/efh/newInv/index.html*). Federal agencies that authorize, fund, or undertake actions that may adversely affect EFH must consult with NMFS, and NMFS must provide conservation recommendations to Federal and state agencies regarding any such actions (§ 600.815(a)(9)).

Under the current FMP, NMFS uses a two-phase process to update HMS EFH. Phase 1 includes the development of a draft 5-year review, the public comment process, and the publication of a final 5-year review. Phase 1 is initiated approximately 5 years after publication of the most recent EFH action. This draft document constitutes the first part of Phase 1. If there is no new information that warrants updating EFH, then we may choose to retain the previously designated HMS EFH. However, if new information warrants updates, we would initiate Phase 2 of this process, which may include a follow-up action that implements the recommended updates to HMS EFH. The type of follow-up action depends on the outcomes of the 5-year review (*i.e.,* whether it is a simple update, or if it requires an FMP amendment or rulemaking).

EFH 5-year reviews evaluate published scientific literature, unpublished scientific reports, information solicited from interested parties, and previously unavailable or inaccessible data. NMFS announced the initiation of this review and solicited information for this review from the public in a **Federal Register** notice on April 5, 2022 (87 FR 19667). The initial public review/submission period ended on June 6, 2022.

The draft document, developed as part of Phase 1, considers fishing effects, non-fishing effects, environmental changes, and management changes for all HMS, which include tunas (bluefin, bigeye, albacore, yellowfin, and skipjack), sharks, swordfish, and billfishes (blue marlin, white marlin, sailfish, roundscale spearfish, and longbill spearfish). It analyzes new information and data that was not previously included in recent updates to Atlantic HMS EFH, or has become available since publication of our previous EFH action (Amendment 10 to the 2006 Consolidated HMS FMP (82 FR 42329, September 7, 2017)). Upon completion of the Draft HMS EFH 5-Year Review, NMFS will analyze the information gathered through the EFH review process and determine if subsequent revision or amendment of EFH is warranted.

Each section of the Draft HMS EFH 5-Year Review provides topic-specific guidance on feedback that would be helpful from the public to complete this 5-year review. In general, NMFS invites the public to submit comments, information, and data pertaining to the 10 components of EFH for HMS. In particular, NMFS is seeking:

- New data or information that should be incorporated into future analyses to redefine EFH boundaries for HMS;
- New information on methodologies appropriate for the delineation of HMS EFH;
- New data or information to support new or modifications to existing habitat areas of particular concern (HAPCs) for HMS (or whether existing HAPCS are still needed);
- Information pertaining to the role of prey in HMS EFH designations;
- Information on the adverse effects of fishing and non-fishing activities on EFH; and

• Information or feedback on the inclusion of new actions to promote the conservation and enhancement of HMS EFH that may be adversely affected by certain non-fishing activities.

Authority: 16 U.S.C. 971 *et seq.,* and 1801 *et seq.*

Dated: May 1, 2023.

Jennifer M. Wallace,

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

[FR Doc. 2023–09516 Filed 5–3–23; 8:45 am]

BILLING CODE 3510–22–P

COUNCIL ON ENVIRONMENTAL QUALITY

[CEQ–2023–0002]

Columbia River Salmon and Other Native Fish Request for Information

AGENCY: Council on Environmental Quality.

ACTION: Request for information.

SUMMARY: The Council on Environmental Quality (CEQ) is issuing this request for information (RFI) to solicit feedback on Columbia River salmon and other native fish restoration and other relevant information to an ongoing mediation.

DATES: The agency requests comments by July 3, 2023, and must receive comments on or before August 31, 2023.

ADDRESSES: You may submit comments, identified by docket number CEQ–2023–0002, using the Federal eRulemaking Portal at *https://www.regulations.gov.* Follow the instructions for submitting comments.

All submissions received must include the agency name, ''Council on Environmental Quality,'' and the docket number, CEQ–2023–0002, for this RFI. Comments received will be posted without change to *https://www.regulations.gov,* including any personal information provided. Do not submit any information you consider to be private information, privileged or confidential commercial or financial information, or other information the disclosure of which is restricted by statute. CEQ encourages submissions of 1,000 words or fewer. For any submissions that are over 1,000 words, please consider including an executive summary of 1,000 words or fewer.

All submissions are voluntary. You may respond to some or all of the questions listed in the RFI. You may include references to academic literature or links to online material (such as datasets) but please ensure all links are publicly available. Each response should include:

• The name of the individual(s) or entity responding.

• A brief description of the responding individual(s) or entity's mission or areas of expertise.

• A contact for questions or other follow-up on your response.

FOR FURTHER INFORMATION CONTACT: Issues regarding submission or questions on this RFI can be sent to De'Marcus Robinson, Ocean Policy Fellow, 202–395–5750 or *De'Marcus.R.Robinson@ceq.eop.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

The Columbia River and its tributaries were once among the most productive salmon and steelhead ecosystems in the world with an estimated 7.5 to 16 million adult salmon and steelhead returning to Pacific Northwest tributaries each year and sustaining the cultures and economies of Tribal Nations since time immemorial. From the 1930s to the 1970s, the Federal government constructed a series of 14 multipurpose dams in the Columbia River Basin to address a myriad of economic challenges, and, additionally, more than 100 non-Federal dams were constructed.

Communities across the Northwest have come to rely on these dams for reliable and affordable electricity, flood risk management, water supply, irrigation, navigation, and recreation. The dams also altered free-flowing rivers, affected juvenile fish as they migrate out to sea, impeded adult fish returning to spawn, inundated Tribal fishing areas and sacred sites, and forever displaced people from their homes. The construction of the Grand Coulee and Chief Joseph dams without fish passage eradicated salmon and steelhead from the Upper Columbia River Basin. In the 1990s, 13 of the Columbia River Basin's remaining salmon populations required the protection of the Endangered Species Act to survive.

The Federal Government has spent tens of billions of dollars, in partnership with Tribes, states, and non-governmental organizations, on efforts that contribute to fish survival and recovery. States and Tribes have also funded and implemented fish recovery programs. Despite hard work, ingenuity, great expense, and commitment across all levels of Federal, state, Tribal and local governments and a wide range of stakeholders, many fish populations in the Columbia River Basin—salmon, steelhead, and others—have not recovered, some continue to decline, and many areas remain inaccessible to them.

Litigation over the impact of the operation of certain Federal dams in the Columbia River System on salmon and other native fish has been ongoing for decades and the courts have consistently ruled that the Federal Government has fallen short of its legal obligations. Currently, several ongoing cases are pending in the U.S. District Court for the District of Oregon and in the U.S. Court of Appeals for the Ninth Circuit.

In the Fall of 2021, the plaintiffs and petitioners in the litigation and the Federal Government agreed to a temporary stay in the litigation to create an opportunity for the Federal Government to develop a long-term plan to restore Columbia River salmon and other native fish. Shortly thereafter, the Council on Environmental Quality (CEQ) convened an interagency group with leaders from: the Department of the Interior, including the Bureau of Indian Affairs, Bureau of Reclamation, and Fish and Wildlife Service; the Department of Commerce, including the National Oceanic and Atmospheric Administration; the Department of the Army, including the Army Corps of Engineers; and the Department of Energy, including the Bonneville Power Administration. This interagency group is intended to build on existing analyses to identify a durable path forward that ensures a clean energy future, supports local and regional economies, and restores ecosystem function, while honoring longstanding commitments to Tribal Nations.

In March 2022, CEQ Chair Brenda Mallory, Secretary of the Interior Deb Haaland, Secretary of Energy Jennifer Granholm, Assistant Secretary of the Army for Civil Works Michael Connor, and Under Secretary of Commerce for Oceans and Atmosphere Dr. Richard Spinrad convened a consultation with Tribal Nations of the Columbia River Basin and published a blog post reflecting on what the Tribes shared at the consultation and the Administration's values that inform its effort to restore healthy and abundant salmon and steelhead to the Columbia River Basin.

In April 2022, the Federal Government engaged the Federal Mediation and Conciliation Service (FMCS) to mediate and facilitate between the parties in the litigation and the regional sovereigns, including Tribal Nations and states. In August 2022, the plaintiffs, petitioners, and the Federal government agreed to an additional stay in litigation through August 2023.

Through the stay agreement, the Federal Government committed to supporting development of a durable

long-term strategy to restore salmon and other native fish populations to healthy and abundant levels, honoring Federal commitments to Tribal Nations, delivering affordable and reliable clean power, and meeting the many resilience needs of stakeholders across the region. Since that time, the Federal Government has engaged with the states, Tribes, and other litigation parties through the FMCS process toward developing a long-term strategy and further stay or resolution of the litigation. To provide the stakeholders who are not directly involved in the litigation an opportunity to provide input to the Federal agencies on Columbia River Basin restoration, the Federal Government asked FMCS to schedule listening sessions where individuals could provide comment.

The first listening session occurred on March 31, 2023. FMCS gave speakers slots in the order that they registered. Because of the number of people who registered to speak (250 people), the first session was extended in an overflow session on April 3. Fifty-five people offered comments on March 31, and forty-eight on April 3. Across both days, everyone in attendance who had registered to speak had an opportunity to do so; some persons who registered to speak did not attend and others attended but chose not to speak. FMCS has scheduled another listening session for May 25. CEQ is publishing this RFI and opening a publicly accessible docket to provide an additional opportunity for public input on the key questions below or any other information and views relevant to the task of identifying a durable path forward for salmon and other native fish that honors longstanding commitments to Tribal Nations, ensures a clean energy future, supports local and regional economies, and restores ecosystem function. Through this RFI, CEQ also encourages the parties to the FMCS process to review the comments received on the docket to inform discussions in the mediation. This RFI does not serve as a substitute for other public engagement that may be required for any specific action that the Federal government undertakes.

In March 2022, CEQ established an email address, *salmon@ceq.eop.gov,* as a means for interested persons to share their thoughts on issues related to the mediation. Emails sent to *salmon@ceq.eop.gov* are delivered only to CEQ, however, and are not directly available to other parties to the mediation or the public. Because this RFI and the associated public docket provide a more effective means for seeking input than an agency email address, CEQ will close the *salmon@ceq.eop.gov* email address 30 days after publication of this RFI. Interested parties should submit information in response to this RFI in lieu of emailing *salmon@ceq.eop.gov.*

CEQ requests comments under this RFI within 60 days to provide timely information for consideration, however, the public docket will remain open until August 31, 2023, the date the stay agreement is set to expire. CEQ will continue to monitor the docket through August 31, 2023, and will encourage all parties to the mediation to do the same.

II. Key Questions for Input

Lower Snake River

In securing the current stay of litigation, the Federal Government agreed to explore lower Snake River habitat restoration opportunities, ''including but not limited to migration corridor restoration through breaching the four lower Snake River dams,'' which would require Congressional authorization. The Federal Government would welcome views on:

- What constitutes ''restoration'' of the lower Snake River and what steps should the Federal Government take to restore the lower Snake River?
- What considerations should inform the Federal Government's approach to restoring the lower Snake River?
- What information should the Federal government develop to support discussions in the Northwest and in Congress on the restoration of the lower Snake River?

Upper Columbia River

In securing the current stay of litigation, the Federal Government agreed to explore providing full support for and funding of a plan developed by the Upper Columbia River Tribes to reintroduce salmon into the Upper Columbia River Basin. The Federal Government would welcome views on:

- What considerations should inform the Federal Government's approach to supporting the Upper Columbia River Tribes' reintroduction plan?

Funding

In securing the current stay of litigation, the Federal Government agreed to explore actions and funding to address ''unmitigated Tribal needs, avoiding future issues with respect to creating inequities, and actions supporting salmon and other fisheries and fish and wildlife programs and infrastructure.'' The Federal Government would welcome views on:

- What steps should the Federal Government take in response to this commitment?
- What considerations should inform the Federal Government's approach to funding and actions to restore fish populations throughout the Columbia River Basin?

Amy Coyle,

Deputy General Counsel

[FR Doc. 2023–09525 Filed 5–3–23; 8:45 am]

BILLING CODE 3325–F3–P

DEPARTMENT OF EDUCATION

[Docket No.: ED–2022–SCC–0159]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Foreign Gifts and Contracts Disclosures

AGENCY: Federal Student Aid (FSA), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act (PRA) of 1995, the Department is proposing a new information collection request (ICR).

DATES: Interested persons are invited to submit comments on or before June 5, 2023.

ADDRESSES: Written comments and recommendations for proposed information collection requests should be submitted within 30 days of publication of this notice. Click on this link *www.reginfo.gov/public/do/PRAMain* to access the site. Find this information collection request (ICR) by selecting ''Department of Education'' under ''Currently Under Review,'' then check the ''Only Show ICR for Public Comment'' checkbox. *Reginfo.gov* provides two links to view documents related to this information collection request. Information collection forms and instructions may be found by clicking on the ''View Information Collection (IC) List'' link. Supporting statements and other supporting documentation may be found by clicking on the ''View Supporting Statement and Other Documents'' link.

FOR FURTHER INFORMATION CONTACT: For specific questions related to collection activities, please contact Beth Grebeldinger, 202–377–4018.

SUPPLEMENTARY INFORMATION: 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: Foreign Gifts and Contracts Disclosures.

OMB Control Number: 1845–NEW.

Type of Review: A new ICR.

Respondents/Affected Public: Private Sector; State, Local, and Tribal Governments.

Total Estimated Number of Annual Responses: 2,043.

Total Estimated Number of Annual Burden Hours: 40,860.

Abstract: Federal Student Aid (FSA) is requesting a new information collection to collect the required information from institutions regarding foreign gifts and contracts as specified in the Higher Education Act of 1965 (HEA), as amended. Section 117 of the HEA, codified at 20 U.S.C. 1011f, provides that institutions of higher education must file a disclosure report with the Secretary of Education on January 31 or July 31, whichever is sooner, under certain circumstances.

In June of 2020, the U.S. Department of Education (ED) established a collection of information, Foreign Gifts and Contracts Disclosures, 1801–0006, through ED's Partner Enterprise Business Collaboration (PEBC) system. That collection is under an OMB control number for ED's Office of the General Counsel (OGC), which has worked closely with FSA in recent years with respect to administration of Section 117.

With this request for a new collection, the Department would be returning the collection of this information to FSA, which is the office with primary responsibility for the administration of Section 117 within the Department going forward. At present, the Department plans to continue to collect this data through its PEBC system with only slight modifications based on public comment.

Dated: May 1, 2023.

Kun Mullan,

PRA Coordinator, Strategic Collections and Clearance, Governance and Strategy Division, Office of Chief Data Officer, Office of Planning, Evaluation and Policy Development.

[FR Doc. 2023–09503 Filed 5–3–23; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #2

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER23–1749–000.
Applicants: Midcontinent Independent System Operator, Inc.
Description: § 205(d) Rate Filing: 2023–04–28_SA 3235 ITC Midwest-Duane Arnold Solar 1st Rev GIA (J504) to be effective 4/21/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5108.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1750–000.
Applicants: Midcontinent Independent System Operator, Inc., Ameren Illinois Company.
Description: § 205(d) Rate Filing: Midcontinent Independent System Operator, Inc. submits tariff filing per 35.13(a)(2)(iii: 2023–04–28_SA 4046 Ameren IL-Electric Energy Relocation Agreement to be effective 6/28/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5128.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1751–000.
Applicants: Southern California Edison Company.
Description: § 205(d) Rate Filing: 1st Amend GIA, Windhub Solar B + Removal from eTariff record (WDT1515/SA1050) to be effective 6/28/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5157.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1752–000.
Applicants: Oak Trail Solar, LLC.
Description: Baseline eTariff Filing: Reactive Power Compensation Baseline Filing to be effective 6/30/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5189.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1753–000.
Applicants: MATL LLP.
Description: Compliance filing: Order No. 676–J (Second) Compliance Filing to be effective 5/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5204.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1754–000.
Applicants: Southwest Power Pool, Inc.
Description: § 205(d) Rate Filing: 4059 WAPA, Northern States Power & MISO Interconnection Ag to be effective 12/31/9998.
Filed Date: 4/28/23.
Accession Number: 20230428–5235.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1755–000.
Applicants: Public Service Company of Colorado.
Description: Compliance filing: 2023–04–28–Att O PSCo Appendix 1—Amnd to be effective 4/27/2022.
Filed Date: 4/28/23.
Accession Number: 20230428–5245.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1756–000.
Applicants: Long Island Solar Farm, LLC.
Description: § 205(d) Rate Filing: LISF Tariff Update Filing to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5251.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1757–000.
Applicants: Montevue Lane Solar LLC.
Description: Baseline eTariff Filing: Market-Based Rate Application to be effective 6/28/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5267.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1758–000.
Applicants: Niagara Mohawk Power Corporation, New York Independent System Operator, Inc.
Description: § 205(d) Rate Filing: Niagara Mohawk Power Corporation submits tariff filing per 35.13(a)(2)(iii: NYISO-National Grid Joint 205: Amended SGIA Hilltop Solar Project SA2638 to be effective 4/14/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5268.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1759–000.
Applicants: 2014 ESA Project Company, LLC.
Description: Tariff Amendment: Notice of Cancellation to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5275.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1760–000.
Applicants: Guernsey Power Station LLC.
Description: Baseline eTariff Filing: Reactive Power Tariff Application to be effective 6/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5276.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1761–000.
Applicants: Public Service Company of Colorado.
Description: § 205(d) Rate Filing: 2023–04–28 WAPA CFA 350–PSCo Exhibit L Rev 2–0.2.0 to be effective 6/27/2023.
Filed Date: 4/28/23.

Accession Number: 20230428–5366.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1762–000.
Applicants: Evergy Kansas Central, Inc.
Description: § 205(d) Rate Filing: TFR Reg Asset 205 Filing April 2023 to be effective 7/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5379.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1763–000.
Applicants: AE–ESS NWS 1, LLC.
Description: Tariff Amendment: AE–ESS NWS 1 Cancellation of MBR Tariff to be effective 5/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5387.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1764–000.
Applicants: Evergy Kansas Central, Inc.
Description: § 205(d) Rate Filing: GFR Reg Asset 205 April 2023 to be effective 7/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5393.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1765–000.
Applicants: Duke Energy Florida, LLC.
Description: § 205(d) Rate Filing: DEF—CFTOD Revised NITSA SA No. 147 to be effective 4/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5405.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1766–000.
Applicants: Boott Hydropower, LLC.
Description: Baseline eTariff Filing: Market-Based Rate Application and Request for Expedited Action to be effective 5/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5408.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1767–000.
Applicants: ISO New England Inc., The Narragansett Electric Company.
Description: § 205(d) Rate Filing: ISO New England Inc. submits tariff filing per 35.13(a)(2)(iii: Second Revised LGIA–ISONE/NEP–10–03 and First Revised SGIA–ISONE/NEP–13–03 to be effective 1/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5409.
Comment Date: 5 p.m. ET 5/19/23.

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: April 28, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–09495 Filed 5–3–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER23–1733–000]

SFE Energy Massachusetts, Inc.; 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 SFE Energy Massachusetts, Inc.'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 May 18, 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* or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

Dated: April 28, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–09494 Filed 5–3–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. AD10–12–014]

Increasing Market and Planning Efficiency Through Improved Software; Supplemental Notice of Technical Conference on Increasing Real-Time and Day-Ahead Market and Planning Efficiency Through Improved Software

As first announced in the Notice of Technical Conference issued in this proceeding on February 7, 2023, Commission staff will convene a technical conference on June 27, 28, and 29, 2023 to discuss opportunities for increasing real-time and day-ahead market and planning efficiency of the bulk power system through improved software. Attached to this Second Supplemental Notice is the agenda for

the technical conference and speakers' summaries of their presentations.

While the intent of the technical conference is not to focus on any specific matters before the Commission, some conference discussions might include topics at issue in proceedings that are currently pending before the Commission, including topics related to capacity valuation methodologies for renewable, hybrid, or storage resources. These proceedings include, but are not limited to:

PJM Interconnection, L.L.C.	Docket No. EL21–83–000.
California Independent System Operator Corp.	Docket No. ER21–2455–004.
New York Independent System Operator, Inc.	Docket No. ER21–2460–003.
ISO New England, Inc.	Docket No. ER22–983–002.
PJM Interconnection, L.L.C.	Docket No. ER22–962–003.
Southwest Power Pool, Inc.	Docket No. ER22–1697–001.
Midcontinent Independent System Operator, Inc.	Docket No. ER22–1640–000.
ISO New England, Inc.	Docket No. EL22–42–000.
Southwest Power Pool, Inc.	Docket No. ER22–379–000.
PJM Interconnection, L.L.C.	Docket No. ER22–1200–000.
California Independent System Operator Corp.	Docket No. ER23–1485–000.
California Independent System Operator Corp.	Docket No. ER23–1533–000.
California Independent System Operator Corp.	Docket No. ER23–1534–000.
Midcontinent Independent System Operator, Inc.	Docket No. EL23–28.
Midcontinent Independent System Operator, Inc.	Docket No. ER23–1195.
Midcontinent Independent System Operator, Inc.	Docket No. EL23–46.

The conference will take place in a hybrid format, with presenters and attendees allowed to participate either in-person or virtually. Further details on both in-person and virtual participation will be available on the conference web page.[1] Foreign nationals attending in-person must register through the Commission's website on or before June 2, 2023. We also encourage all other in-person attendees to also register through the Commission's website on or before June 2, 2023, to help ensure Commission staff can provide sufficient physical and virtual facilities and to communicate with attendees in the case of unanticipated emergencies or other changes to the conference schedule or location. Access to the conference (virtual or in-person) may not be available to those who do not register.

The Commission will accept comments following the conference, with a deadline of July 28, 2023.

There is an ''eSubscription'' link on the Commission's website that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email *FERCOnlineSupport@ferc.gov,* or call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

FERC conferences are accessible under section 508 of the Rehabilitation Act of 1973. For accessibility accommodations please send an email to *accessibility@ferc.gov* or call toll free (866) 208–3372 (voice) or (202) 502–8659 (TTY), or send a fax to (202) 208–2106 with the required accommodations.

For further information about these conferences, please contact:

Sarah McKinley (Logistical Information), Office of External Affairs, (202) 502–8004, *Sarah.McKinley@ferc.gov*

Alexander Smith (Technical Information), Office of Energy Policy and Innovation, (202) 502–6601, *Alexander.Smith@ferc.gov*

Dated: April 28, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–09496 Filed 5–3–23; 8:45 am]

BILLING CODE 6717–01–P

[1] *https://www.ferc.gov/news-events/events/increasing-real-time-and-day-ahead-market-and-planning-efficiency-through.*

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 2445–028]

Green Mountain Power Corporation; Notice of Intent To Prepare an Environmental Assessment

On December 23, 2021, Green Mountain Power Corporation filed a relicense application for the 275-kilowatt Center Rutland Hydroelectric Project No. 2445 (project). The project is located on Otter Creek in Rutland County, Vermont.

In accordance with the Commission's regulations, on February 17, 2023, Commission staff issued a notice that the project was ready for environmental analysis (REA Notice). Based on the information in the record, including comments filed on the REA Notice, staff does not anticipate that licensing the project would constitute a major federal action significantly affecting the quality of the human environment. Therefore, staff intends to prepare an Environmental Assessment (EA) on the application to relicense the project.

The EA will be issued and circulated for review by all interested parties. All comments filed on the EA will be analyzed by staff and considered in the Commission's final licensing decision.

The application will be processed according to the following schedule. Revisions to the schedule may be made as appropriate.

Milestone	Target date
Commission issues EA	October 2023.[1]
Comments on EA	November 2023.

Any questions regarding this notice may be directed to Nicholas Tackett at (202) 502–6783 or *Nicholas.Tackett@ferc.gov.*

Dated: April 28, 2023.

Kimberly D. Bose,

Secretary.

[FR Doc. 2023–09487 Filed 5–3–23; 8:45 am]

BILLING CODE 6717–01–P

[1] The Council on Environmental Quality's (CEQ) regulations under 40 CFR 1501.10(b)(1) require that EAs be completed within 1 year of the federal action agency's decision to prepare an EA. This notice establishes the Commission's intent to prepare an EA for the Center Rutland Hydroelectric Project. Therefore, in accordance with CEQ's regulations, the EA must be issued within 1 year of the issuance date of this notice.

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: PR23–49–000.
Applicants: Columbia Gas of Ohio, Inc.
Description: § 284.123 Rate Filing: COH Rates effective 3–30–2023 to be effective 3/30/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5110.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: RP23–715–000.
Applicants: Midship Pipeline Company, LLC.
Description: Compliance filing: Midship Pipeline CP17–458 Compliance Filing to be effective N/A.

Filed Date: 4/27/23.
Accession Number: 20230427–5229.
Comment Date: 5 p.m. ET 5/9/23.

Docket Numbers: RP23–716–000.
Applicants: El Paso Natural Gas Company, L.L.C.
Description: § 4(d) Rate Filing: Negotiated Rate Agmt Update (Conoco—May 23) to be effective 5/1/2023.
Filed Date: 4/27/23.
Accession Number: 20230427–5242.
Comment Date: 5 p.m. ET 5/9/23.

Docket Numbers: RP23–717–000.
Applicants: El Paso Natural Gas Company, L.L.C.
Description: § 4(d) Rate Filing: Negotiated Rate Agreement Update (SoCal May 2023) to be effective 5/1/2023.
Filed Date: 4/27/23.
Accession Number: 20230427–5251.
Comment Date: 5 p.m. ET 5/9/23.

Docket Numbers: RP23–718–000.
Applicants: Cameron Interstate Pipeline, LLC.
Description: Annual Interruptible Revenue Sharing Report of Cameron Interstate Pipeline, LLC.
Filed Date: 4/27/23.
Accession Number: 20230427–5336.
Comment Date: 5 p.m. ET 5/9/23.

Docket Numbers: RP23–719–000.
Applicants: Transcontinental Gas Pipe Line Company, LLC.
Description: § 4(d) Rate Filing: Negotiated Rates—Cherokee AGL—Replacement Shippers—May 2023 to be effective 5/1/2023.
Filed Date: 4/27/23.
Accession Number: 20230427–5357.
Comment Date: 5 p.m. ET 5/9/23.

Docket Numbers: RP23–720–000.
Applicants: Gulfstream Natural Gas System, L.L.C.
Description: § 4(d) Rate Filing: 2023 GNGS TUP/SBA Annual Filing to be effective 6/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5031.
Comment Date: 5 p.m. ET 5/10/23.

Docket Numbers: RP23–721–000.
Applicants: Fayetteville Express Pipeline LLC.
Description: Compliance filing: Fuel Filing on 4–28–2023 to be effective N/A.
Filed Date: 4/28/23.
Accession Number: 20230428–5035.
Comment Date: 5 p.m. ET 5/10/23.

Docket Numbers: RP23–722–000.
Applicants: ETC Tiger Pipeline, LLC.
Description: § 4(d) Rate Filing: Fuel Filing on 4–28–2023 to be effective 6/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5039.
Comment Date: 5 p.m. ET 5/10/23.

Docket Numbers: RP23–723–000.
Applicants: Colorado Interstate Gas Company, L.L.C.
Description: § 4(d) Rate Filing: Negotiated Rate Agreement Filing (TMV May 23) to be effective 6/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5067.
Comment Date: 5 p.m. ET 5/10/23.

Docket Numbers: RP23–725–000.
Applicants: Cameron Interstate Pipeline, LLC.
Description: Annual Transportation and Imbalances and Cash-Out Report of Cameron Interstate Pipeline, LLC.
Filed Date: 4/27/23.
Accession Number: 20230427–5446.
Comment Date: 5 p.m. ET 5/9/23.

Docket Numbers: RP23–726–000.
Applicants: Cameron Interstate Pipeline, LLC.
Description: Annual Operational Transactions Report of Cameron Interstate Pipeline, LLC.
Filed Date: 4/27/23.
Accession Number: 20230427–5447.
Comment Date: 5 p.m. ET 5/9/23.

Docket Numbers: RP23–727–000.
Applicants: Cameron Interstate Pipeline, LLC.
Description: Annual Operational Imbalances and Cash-Out Report of Cameron Interstate Pipeline, LLC.
Filed Date: 4/27/23.
Accession Number: 20230427–5448.
Comment Date: 5 p.m. ET 5/9/23.

Docket Numbers: RP23–728–000.
Applicants: Cameron Interstate Pipeline, LLC.
Description: Annual Penalty Revenues Report of Cameron Interstate Pipeline, LLC.
Filed Date: 4/27/23.
Accession Number: 20230427–5449.
Comment Date: 5 p.m. ET 5/9/23.

Docket Numbers: RP23–729–000.
Applicants: Gulf South Pipeline Company, LLC.
Description: § 4(d) Rate Filing: Cap Rel Neg Rate Agmt (Methanex 42805 to Tenaska 56239) to be effective 5/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5099.
Comment Date: 5 p.m. ET 5/10/23.

Docket Numbers: RP23–730–000.
Applicants: Wyoming Interstate Company, L.L.C.
Description: § 4(d) Rate Filing: Negotiated Rate Agreement Update (Castleton) to be effective 6/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5116.
Comment Date: 5 p.m. ET 5/10/23.

Docket Numbers: RP23–731–000.
Applicants: Kern River Gas Transmission Company.
Description: § 4(d) Rate Filing: 2023 April Negotiated Contract Amendment to be effective 5/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5123.
Comment Date: 5 p.m. ET 5/10/23.

Docket Numbers: RP23–732–000.
Applicants: ANR Pipeline Company.
Description: § 4(d) Rate Filing: Cashout Surchage 2023 to be effective 6/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5169.
Comment Date: 5 p.m. ET 5/10/23.

Docket Numbers: RP23–733–000.
Applicants: Northern Natural Gas Company.
Description: § 4(d) Rate Filing: 20230428 Negotiated Rate to be effective 5/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5206.
Comment Date: 5 p.m. ET 5/10/23.

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.

Filings in Existing Proceedings

Docket Numbers: RP20–1042–003.
Applicants: Northern Natural Gas Company.
Description: Compliance filing: 20230427 2023 Operational Purchase and Sales Report to be effective N/A.
Filed Date: 4/27/23.
Accession Number: 20230427–5329.
Comment Date: 5 p.m. ET 5/9/23.

Any person desiring to protest in any the above proceedings must file in accordance with Rule 211 of the Commission's Regulations (18 CFR 385.211) on or before 5:00 p.m. Eastern time on the specified comment date.

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: April 28, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–09497 Filed 5–3–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER23–1734–000]

SFE Energy, Inc.; 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 SFE Energy, Inc.'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 May 18, 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* or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

Dated: April 28, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–09493 Filed 5–3–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER11–3589–006.
Applicants: Long Island Solar Farm, LLC.
Description: Compliance filing: LISF Tariff Update Filing to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5332.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER15–1706–005.
Applicants: Newark Energy Center, LLC.
Description: Compliance filing: Informational Filing Pursuant to Schedule 2 of the PJM OATT to be effective N/A.
Filed Date: 4/28/23.
Accession Number: 20230428–5355.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER19–1507–000.
Applicants: Duke Energy Florida, LLC, Duke Energy Progress, LLC, Duke Energy Carolinas, LLC.
Description: Order Nos. 845 and 845–A Informational Report on Interconnection Study Delays Under OATT LGIP of Duke Energy Carolinas, LLC.
Filed Date: 4/28/23.
Accession Number: 20230428–5402.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–841–001.
Applicants: Southwest Power Pool, Inc.
Description: Tariff Amendment: Deficiency Response—Revisions to Clarify Financial Security Refund Eligibility to be effective 4/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5239.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1120–000.
Applicants: Nevada Cogeneration Associates #1.
Description: Amendment to February 15, 2023, Nevada Cogeneration Associates #1 submits tariff filing to Application for Market Based Rate Authority.
Filed Date: 4/27/23.
Accession Number: 20230427–5103.
Comment Date: 5 p.m. ET 5/8/23.

Docket Numbers: ER23–1735–000.
Applicants: Constellation Mystic Power, LLC.
Description: Compliance filing: Compliance Filing on Complaint Order issued in Docket No. EL23–4 to be effective 4/28/2023.
Filed Date: 4/27/23.
Accession Number: 20230427–5339.
Comment Date: 5 p.m. ET 5/18/23.

Docket Numbers: ER23–1736–000.
Applicants: Big Plain Solar, LLC.
Description: Baseline eTariff Filing: Reactive Power Compensation Baseline Filing to be effective 6/30/2023.
Filed Date: 4/27/23.
Accession Number: 20230427–5342.
Comment Date: 5 p.m. ET 5/18/23.

Docket Numbers: ER23–1737–000.
Applicants: Tampa Electric Company.
Description: § 205(d) Rate Filing: Emergency Interchange Service Schedule A&B–2023 to be effective 5/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5001.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1738–000.
Applicants: Midcontinent Independent System Operator, Inc.
Description: § 205(d) Rate Filing: 2023–04–28_SA 4033 NSP–WAPA Interconnection Agreement to be effective 12/31/9998.
Filed Date: 4/28/23.
Accession Number: 20230428–5041.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1739–000.
Applicants: AM Wind Repower LLC.
Description: Compliance filing: Notice of Non-Material Change in Status and Change in Category Seller Status to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5055.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1740–000.
Applicants: Brookfield Energy Marketing Inc.
Description: Compliance filing: Notice of Non-Material Change in Status and Change in Category Seller Status to be effective 4/29/2023.

Filed Date: 4/28/23.
Accession Number: 20230428–5057.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1741–000.
Applicants: ISO New England Inc., The Narragansett Electric Company.
Description: § 205(d) Rate Filing: ISO New England Inc. submits tariff filing per 35.13(a)(2)(iii: Filing of Second Revised LGIA–ISONE/NEP–15–01 (Manchester Street) to be effective 1/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5058.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1742–000.
Applicants: Brookfield Energy Marketing LP.
Description: Compliance filing: Notice of Non-Material Change in Status and Change in Category Seller Status to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5060.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1743–000.
Applicants: Brookfield Renewable Energy Marketing US LLC.
Description: Compliance filing: Notice of Non-Material Change in Status and Change in Category Seller Status to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5061.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1744–000.
Applicants: Brookfield Renewable Trading and Marketing LP.
Description: Compliance filing: Notice of Non-Material Change in Status and Change in Category Seller Status to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5063.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1745–000.
Applicants: Imperial Valley Solar 1, LLC.
Description: Compliance filing: Notice of Non-Material Change in Status and Change in Category Seller Status to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5066.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1746–000.
Applicants: Mesa Wind Power LLC.
Description: Compliance filing: Notice of Non-Material Change in Status and Change in Category Seller Status to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5069.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1747–000.
Applicants: Regulus Solar, LLC.
Description: Compliance filing: Notice of Non-Material Change in Status and Change in Category Seller Status to be effective 4/29/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5073.
Comment Date: 5 p.m. ET 5/19/23.

Docket Numbers: ER23–1748–000.
Applicants: ISO New England Inc., The Narragansett Electric Company.
Description: § 205(d) Rate Filing: ISO New England Inc. submits tariff filing per 35.13(a)(2)(iii: First Revised LGIA–ISONE/NEP–22–01 (Ocean State) to be effective 1/1/2023.
Filed Date: 4/28/23.
Accession Number: 20230428–5134.
Comment Date: 5 p.m. ET 5/19/23.

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: April 28, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–09492 Filed 5–3–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP20–55–000]

Port Arthur LNG Phase II, LLC, PALNG Common Facilities Company, LLC; Notice of Availability of the Environmental Assessment for the Proposed Port Arthur Expansion Project

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared a Supplemental Environmental Assessment (EA) for the Port Arthur LNG Expansion Project, proposed by Port Arthur LNG Phase II, LLC and PALNG Common Facilities Company, LLC (collectively referred to as Applicant) in the above-referenced docket. The Applicant requests approval to expand the previously authorized Port Arthur Liquefaction Terminal in Jefferson County, Texas by siting, constructing, and operating additional liquefied natural gas (LNG) facilities to increase the terminal's capability to liquefy natural gas for export by 13.46 million tonnes per annum (MTPA). The Port Arthur LNG Expansion Project would increase the terminal's total liquefaction capacity from 13.46 MTPA to 26.92 MTPA.

The Supplemental EA includes a summary of the project's impacts and responds to comments that were received on the Commission's January 15, 2021 Environmental Assessment (EA).[1] The Supplemental EA will assist the Commission in its consideration of the project's impacts on air quality, environmental justice communities, and climate change, and will inform the Commission in its review of the project under section 3 of the Natural Gas Act. Commission staff conclude that approval of the Port Arthur LNG Expansion Project, with the mitigation measures recommended in this Supplemental EA, would not constitute a major federal action significantly affecting the quality of the human environment.

The U.S. Environmental Protection Agency, U.S. Department of Energy, U.S. Coast Guard, and U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration participated as a cooperating agencies in the preparation of the Supplemental EA. Cooperating agencies have jurisdiction by law or special expertise with respect to resources potentially affected by the proposal and participate in the National Environmental Policy Act (NEPA) analysis.

The Supplemental EA incorporates the Commission's January 15, 2021 EA, which addresses the potential environmental effects of the construction and operation of the following project facilities:

- two liquefaction trains (Trains 3 and 4) each with a maximum LNG production capacity of 6.73 MTPA (13.46 MTPA total);
- one new low-pressure ground flare;
- new flare knockout drums;
- one new boil-off gas (BOG) compressor unit to compress BOG and deliver as fuel to gas turbines;

[1] The Commission's January 15, 2021 Environmental Assessment of the Port Arthur LNG Expansion Project is available on eLibrary under accession no. 20210115–3014.

• two new utility and instrument air compressor packages to deliver air to two new air drier packages;

• one new 3.675 megawatt capacity diesel powered standby generator; and

• shifting location of some equipment from Base Project and modifications and additions to approved utilities, fire and gas detection systems, control system, firewater system, spill containment, tertiary berm, and infrastructure needed to accommodate the two additional liquefaction trains.[2]

The Commission mailed a copy of the *Notice of Availability of the Supplemental Environmental Assessment for the Proposed Port Arthur LNG Expansion Project* to federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; potentially affected landowners (as defined by the Commission's regulations) and other interested individuals and groups. The Supplemental EA is only available in electronic format. It may be viewed and downloaded from the FERC's website (*www.ferc.gov*), on the natural gas environmental documents page (*https://www.ferc.gov/industries-data/natural-gas/environment/environmental-documents*). In addition, the Supplemental EA may be accessed by using the eLibrary link on the FERC's website. Click on the eLibrary link (*https://elibrary.ferc.gov/eLibrary/search*) select ''General Search'' and enter the docket number in the ''Docket Number'' field (*i.e.* CP20–55–000). Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at *FercOnlineSupport@ferc.gov* or toll free at (866) 208–3676, or for TTY, contact (202) 502–8659.

The Supplemental EA is not a decision document. It presents Commission staff's independent analysis of the environmental issues for the Commission to consider when addressing the merits of all issues in this proceeding. Any person wishing to comment on the Supplemental EA may do so. Your comments should focus on the Supplemental EA's disclosure and discussion of potential environmental effects and measures to avoid or lessen environmental impacts. The more specific your comments, the more useful they will be. To ensure the Commission has the opportunity to consider your comments prior to making its decision on this project, it is important that the Commission receive your comments on or before 5:00 p.m. Eastern Time on May 30, 2023.

For your convenience, there are four methods you can use to submit your comments to the Commission. The Commission encourages electronic filing of comments and has staff available to assist you at (866) 208–3676 or *FercOnlineSupport@ferc.gov.* Please carefully follow these instructions so that your comments are properly recorded.

• You can file your comments electronically using the *eComment* feature on the Commission's website (*www.ferc.gov*) under the link to FERC Online. This is an easy method for submitting brief, text-only comments on a project;

• You can file your comments electronically by using the *eFiling* feature also on the Commission's website (*www.ferc.gov*) under the link to FERC Online. With eFiling, you can provide comments in a variety of formats by attaching them as a file with your submission. New eFiling users must first create an account by clicking on ''*eRegister.*'' If you are filing a comment on a particular project, please select ''Comment on a Filing'' as the filing type; or

• You can file a paper copy of your comments by mailing them to the Commission. Be sure to reference the Project docket number (CP20–55–000) on your letter. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852.

• In lieu of sending written comments, the Commission invites you to attend the virtual public comment sessions its staff will conduct by telephone, scheduled as follows:

Date and Time of Public Comment Sessions on the Supplemental EA

May 15, 2023

Session 1

Time: 1 p.m. local
Call in number: 888–396–9928
Participant passcode: 8598617

Session 2

Time: 6 p.m. local
Call in number: 888–396–9928
Participant passcode: 8707920

The primary goal of the comment sessions is to have stakeholders identify specific environmental issues and concerns with the Supplemental EA. Note that the comment sessions will end once all participants wishing to comment have had the opportunity to do so, or after two hours, whichever comes first. Individual oral comments will be taken one at a time with a court reporter present on the line.

There will be a brief introduction by Commission staff when the session opens, so please attempt to call in at the beginning of the session. All participants will be able to hear the comments provided by other participants; however, all lines will remain closed during the comments of others and then opened one at a time for providing comments. Once you call in, the operator will provide directions on how to indicate you would like to provide a comment. A time limit of 5 minutes may be implemented for each commentor.

Your oral comments will be recorded by the court reporter and become part of the public record for this proceeding. Transcripts of all comments received during the session will be publicly available on FERC's eLibrary system (see page 2 of this notice for instructions on using eLibrary).

It is important to note that the Commission provides equal consideration to all comments received, whether filed in written form or provided orally at a comment session.

Filing environmental comments will not give you intervenor status, but you do not need intervenor status to have your comments considered. Only intervenors have the right to seek rehearing or judicial review of the Commission's decision. At this point in the proceeding, the timeframe for filing timely intervention requests has expired. Any person seeking to become a party to the proceeding must file a motion to intervene out-of-time pursuant to Rule 214(b)(3) and (d) of the Commission's Rules of Practice and Procedures (18 CFR part 385.214(b)(3) and (d)) and show good cause why the time limitation should be waived. Motions to intervene are more fully described at *https://www.ferc.gov/how-intervene.*

Additional information about the project is available from the Commission's Office of External Affairs, at (866) 208–FERC, or on the FERC website (*www.ferc.gov*) using the

[2] On January 18, 2023, FERC staff issued a letter approving design modifications related to Port Arthur LNG, LLC's Base Project under FERC Docket Number CP17–20–000, which included shifting and relocation of some equipment, including LNG storage tanks, and modifications and additions to utilities, and spill containment. The relocations and modifications do not involve any new facilities associated with the Expansion Project. See FERC eLibrary at *https://elibrary.ferc.gov/eLibrary/search,* Accession Number 20230118–3011.

eLibrary link. The eLibrary link also provides access to the texts of all formal documents issued by the Commission, such as orders, notices, and rulemakings.

In addition, the Commission offers a free service called eSubscription which allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notification of these filings, document summaries, and direct links to the documents. Go to *https://www.ferc.gov/ferc-online/overview* to register for eSubscription.

Dated: April 28, 2023.

Kimberly D. Bose,

Secretary.

[FR Doc. 2023–09489 Filed 5–3–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Notice of Staff Attendance at North American Electric Reliability Corporation Meetings

The Federal Energy Regulatory Commission hereby gives notice that members of the Commission and/or Commission staff may attend the following meetings:

North American Electric Reliability Corporation Project 2022–04 EMT Modeling SAR Drafting Team Meeting

May 1, 2023 | 3:00 p.m.–5:00 p.m. Eastern

North American Electric Reliability Corporation System Planning Impacts from DERs Working Group (SPIDERWG) Meeting

May 2, 2023 | 1:00 p.m.–5:00 p.m. Eastern

May 3, 2023 | 1:00 p.m.–5:00 p.m. Eastern

North American Electric Reliability Corporation Member Representatives Committee Meeting

May 10, 2023 | 4:00 p.m.–6:00 p.m. Eastern

North American Electric Reliability Corporation Board of Trustees Meeting

May 11, 2023 | 10:00 a.m.–12:00 p.m. Mountain

Further information regarding these meetings may be found at: *http://www.nerc.com/Pages/Calendar.aspx.*

The discussions at the meetings, which are open to the public, may address matters at issue in the following Commission proceedings:

Docket Nos.	RD22–4–000	Registration of Inverter-Based Resources.
	RD22–4–001	
	RD23–1–000	Cold Weather Reliability Standards.
	RD23–1–001	

For further information, please contact Leigh Anne Faugust (202) 502–6396 or *leigh.faugust@ferc.gov.*

Dated: April 28, 2023.

Kimberly D. Bose,

Secretary.

[FR Doc. 2023–09488 Filed 5–3–23; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2022–0223; FRL–10924–01–OCSPP]

Cancellation Order for Certain Chlorpyrifos Registrations and Uses

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA) hereby announces its final cancellation order for the cancellations and amendments voluntarily requested by the registrants and accepted by the Agency, of the products in Table 1 and Table 2 of Unit I, pursuant to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). This final cancellation order follows a December 13, 2022, **Federal Register** Notice of Receipt of Requests from the registrants listed in Table 3 of Unit I, to voluntarily cancel or amend these product registrations. In the December 13, 2022 notice, EPA indicated that it would issue a final order implementing the cancellations, unless the Agency received substantive comments within the 30-day comment period that would merit its further review of these requests, or unless the registrants withdrew their requests. The Agency received three comments on the notice regarding registrations containing the ingredient chlorpyrifos, which are summarized in Unit III.B. EPA's responses to these comments and its determination that these comments do not merit further review of these cancellation and amendment requests are included in Unit III.C. None of the registrants withdrew their request for these voluntary cancellations or amendments. Accordingly, EPA hereby grants the requested cancellations and amendments shown in this cancellation order. Any distribution, sale, or use of existing stocks of these products subject to this cancellation order is permitted only in accordance with the terms of this order.

DATES: The cancellations and amendments are effective May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Patricia Biggio, Pesticide Re-Evaluation Division (7508M), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001; telephone number: (202) 566–0700; email address: *OPPChlorpyrifosInquiries@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

This action is directed to the public in general and may be of interest to a wide range of stakeholders including environmental, human health, and agricultural advocates; the chemical industry; pesticide users; and members of the public interested in the sale, distribution, or use of pesticides. Since others also may be interested, the Agency has not attempted to describe all the specific entities that may be affected by this action.

B. How can I get copies of this document and other related information?

The docket for this action, identified by docket identification (ID) number EPA–HQ–OPP–2022–0223, is available at *https://www.regulations.gov* or at the Office of Pesticide Programs Regulatory Public Docket (OPP Docket) in the Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave. NW, Washington, DC 20460–0001. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the OPP Docket is (202) 566–1744. Please review the visitor instructions and additional information about the docket available at *https://www.epa.gov/dockets.*

II. What action is the Agency taking?

This document announces the cancellations and amendments through termination of certain uses, as requested by registrants, of products registered under FIFRA section 3 (7 U.S.C. 136a). These registrations are listed in sequence by registration number in Table 1 and Table 2 of this Unit.

TABLE 1—PRODUCT CANCELLATIONS

Registration No.	Company No.	Product name	Active ingredients
1381–243	1381	Tundra Supreme	Chlorpyrifos Bifenthrin.
62719–34	62719	Lorsban 15G	Chlorpyrifos.
62719–79	62719	LOCK-ON	Chlorpyrifos.
62719–220	62719	Lorsban-4E	Chlorpyrifos.
62719–221	62719	Lorsban 50W in Water Soluble Packets	Chlorpyrifos.
62719–254	62719	Dursban 4E-N	Chlorpyrifos.
62719–301	62719	Lorsban 75WG	Chlorpyrifos.
62719–353	62719	Dursban F Insecticidal Chemical	Chlorpyrifos.
62719–355	62719	Dursban R Insecticidal Chemical	Chlorpyrifos.
62719–575	62719	Cobalt	Chlorpyrifos gamma-Cyhalothrin.
62719–591	62719	Lorsban advanced	Chlorpyrifos.
62719–615	62719	Cobalt advanced	Chlorpyrifos.
83222–20	83222	CPF 4E	Chlorpyrifos.
83222–34	83222	CPF 15G	Chlorpyrifos.

TABLE 2—CHLORPYRIFOS REGISTRATIONS WITH SPECIFIC USES TO BE TERMINATED

Registration No.	Company No.	Product name	Uses to be terminated
11678–58	11678	Pyrinex Chlorpyrifos Insecticide	*Food uses:* Agricultural Crops [Terrestrial Food Crop, Greenhouse Food Crop]: Alfalfa; apple; asparagus; banana; beet (sugar, garden/table, including crops grown for seed); blueberry; Brassica (cole) leafy vegetables (bok choy, broccoli, broccoli raab, Brussels sprouts, cabbage, cauliflower, Chinese cabbage, collards, kale, kohlrabi); caneberries; cherimoya; cherries (sour, sweet); citrus fruits, corn (field corn, sweet corn (including corn grown for seed)); cotton; cranberry; cucumber; date; feijoa; fig; grape; kiwifruit; leek; legume vegetables (succulent or dried), mint; nectarine; onion (dry bulb); peach; peanut; pear; pepper; plum; prune; pumpkin; radish (including crops grown for seed); rutabaga; sapote; seed and pod vegetables; sorghum (milo); strawberry; sugarcane; sunflower; sweet potato; tree nuts, turnip; wheat; seed treatment. *Commercial Livestock Housing:* Cattle ear tags, poultry houses, turkey barns, swine barns, and dairy barns. *Nonfood uses:* Tobacco.
66222–19	66222	Chlorpyrifos 4E AG	*Food uses:* Alfalfa, apple tree trunk, asparagus, cherries, citrus fruits (calmondin, chironja, citrus citron, citrus hybrids, grapefruit, kumquat, lemons, limes, mandarin, tangerine, oranges, pummelo, Satsuma mandarin, tangelo, tangor, and other citrus fruit), cranberries, figs, grapes; legume vegetables including adzuki bean, asparagus bean, bean, blackeyed pea, broad bean (dry and succulent), catjang, chickpea, Chinese longbean, cowpea, crowder pea, dwarf pea, edible pod pea, English pea, fava bean, field bean, field pea, garbanzo bean, garden pea, grain lupin, green pea, guar, hyacinth bean, jackbean, kidney bean, lablab bean, lentil, lima bean, moth bean, mung bean, navy bean, pea, pigeon pea, pinto bean, rice bean, runner bean, snap bean, snow pea, southern pea, sugar snap pea, sweet lupin, sword bean, tepary bean, urd bean, wax bean, white lupin, white sweet lupin, yardlong bean; mint (peppermint and spearmint), plums, prunes, nectarines, peaches, almonds, onions, peanuts, pears, sorghum, soybeans, strawberries, sugar beets, sunflowers, sweet potatoes, tree fruits, tree nuts, almonds, filberts, pecans, walnuts; almond, pecan, walnut orchard floors; vegetables, Brassica (cole) leafy vegetable (bok choy), cauliflower, broccoli, Brussels sprouts, cabbage, Chinese cabbage, collards, kale, kohlrabi, turnips, radishes, rutabagas, wheat, cotton; seed treatment. *Nonfood uses:* Tobacco.

TABLE 2—CHLORPYRIFOS REGISTRATIONS WITH SPECIFIC USES TO BE TERMINATED—Continued

Registration No.	Company No.	Product name	Uses to be terminated
66222–233	66222	Vulcan	*Food uses:* Alfalfa, apple, citrus fruits: calamondin, chironja, citrus citron, citrus hybrids, grapefruit, kumquat, lemons, limes, mandarin (tangerine), oranges, pummelo, Satsuma mandarin, tangelo, tangor, citrus orchard floors, corn (field and sweet) (including corn grown for seed), cotton, cranberries, figs, grapes; legume vegetables, including adzuki bean, asparagus bean, bean, blackeyed pea, broad bean (dry and succulent), catjang, chickpea, Chinese longbean, cowpea, crowder pea, dwarf pea, edible pod pea, English pea, fava bean, field bean, field pea, garbanzo bean, garden pea, grain lupin, green pea, guar, hyacinth bean, jackbean, kidney bean, lablab bean, lentil, lima bean, moth bean, mung bean, navy bean, pea, pigeon pea, pinto bean, rice bean, runner bean, snap bean, snow pea, southern pea, sugar snap pea, sweet lupin, sword bean, tepary bean, urd bean, wax bean, white lupin, white sweet lupin, yardlong bean; mint (peppermint and spearmint), nectarines, peaches, almonds, onions (dry bulb), peanuts, pears, sorghum, soybeans, strawberries, sugar beets, sunflowers, sweet potatoes, tree fruits and nuts: almond, cherry, nectarine, peach, pear, plum, prune, walnut, filberts; almond, pecan, and walnut orchard floors; vegetables: cauliflower, broccoli, broccoli raab, Brussels sprouts, cabbage, Chinese cabbage, collards, kale, kohlrabi, rutabaga, turnips, radish, wheat; seed treatment. *Nonfood uses:* Tobacco.

TABLE 3—REGISTRANTS OF CANCELLED OR AMENDED PRODUCTS

EPA company No.	Company name and address
11678	ADAMA US, 3120 Highwoods Boulevard, Suite 100, Raleigh, NC 27604.
66222	ADAMA US, 3120 Highwoods Boulevard, Suite 100, Raleigh, NC 27604.
62719	Corteva Agriscience, LLC, 9330 Zionsville Road, Indianapolis, IN 46268.
1381	Winfield Solutions, LLC, 1080 County Rd., F West, MS5705, P.O. Box 64589, St. Paul, MN 55164.
83222	Winfield Solutions, LLC, 1080 County Rd., F West, MS5705, P.O. Box 64589, St. Paul, MN 55164.

III. Public Comments

A. Brief History

In August 2021, EPA issued a rule in the **Federal Register** on August 30, 2021 (86 FR 48315) (FRL–5993–04–OCSPP) revoking chlorpyrifos tolerances on the grounds that the chlorpyrifos tolerances were not safe. Pursuant to the procedures set forth in FFDCA section 408(g)(2), objections to, requests for evidentiary hearings on those objections, and/or requests for stays of the Final Rule were filed on or before the close of the objections period on October 29, 2021. EPA issued an Order published in the **Federal Register** on February 28, 2022 (87 FR 11222) (FRL–5993–05–OCSPP) denying all objections to, requests for hearing on those objections, as well as requests for stay of the Final Rule (the Denial Order).

As a result, chlorpyrifos tolerances expired on February 28, 2022 per the Final Rule. Once the tolerances expired, use of pesticide products containing chlorpyrifos on food or feed crops would result in adulterated food, which cannot be sold in interstate commerce. After EPA alerted registrants of chlorpyrifos products of the lack of tolerances and the options for their products, several registrants submitted requests to voluntarily cancel their chlorpyrifos pesticide products. The notice for this action was published for comment in the **Federal Register** on December 13, 2022 (87 FR 76191) (FRL–10469–01–OCSPP). The 30-day public comment period closed on January 12, 2023.

B. Summary of Comments Received

During the public comment period, EPA received three comments in response to the December 13, 2022 notice. The comments can be found in the docket for this action, identified by docket identification (ID) number EPA–HQ–OPP–2022–0223, available at *https://www.regulations.gov* and are briefly summarized here. One comment was submitted by the American Sugarbeet Growers Association, U.S. Beet Sugar Association, and the Beet Sugar Development Foundation. A second comment was submitted by a private citizen, and a third comment was submitted anonymously and was not substantive.

The comment from the American Sugarbeet Growers Association, U.S. Beet Sugar Association, and the Beet Sugar Development Foundation opposed the voluntary cancellation of the products in the December 13, 2022 notice of receipt for this action. In particular, these commenters specified concerns that the voluntary cancellation of chlorpyrifos registrations and termination of certain uses is premature while there is ongoing litigation regarding the Final Rule and Denil Order in the United States Court of Appeals for the Eighth Circuit, *Red River Valley Sugarbeet Growers Ass'n et al.,* v. *Regan, et al.,* Nos. 22–1422, 22–1530 (8th Cir.). These commenters also specified concerns that sugarbeet growers will suffer irreparable harm because the loss of chlorpyrifos as a pest management tool will result in substantial increased costs, lost profits, decreased crop yields, and a larger environmental impact from more frequent use of less effective alternatives.

The comment from the private citizen specified concerns about allowing the export of chlorpyrifos outside of the

United States as well as purchasing produce and foodstuffs that may have been treated with substances that are prohibited from application to food in the United States, like chlorpyrifos.

C. EPA Response to Comments

Regarding the comments submitted by the American Sugarbeet Growers Association, U.S. Beet Sugar Association, and the Beet Sugar Development Foundation, the cancellations and amendments requested by the registrants listed in Table 3 are appropriate at this time because registrants have a right under section 6(f)(1) of FIFRA to at any time request that EPA cancel or amend their registrations to terminate one or more uses. 7 U.S.C. 136d(f)(1)(A). The registrant may request voluntary cancellation of a pesticide product registration at any time for many reasons, including lack of interest in maintaining the registration or the pesticide no longer being marketed.

EPA cannot compel registrants to maintain a registration indefinitely if they request to voluntarily cancel it. The resolution and timing of the litigation in the Eighth Circuit is unknown, and therefore, retention of the registrations could subject registrants to additional maintenance fees and responsibilities for those registrations, for which the registrants requested cancellation or amendment. See, *e.g.,* 40 CFR part 152, subpart G (registrant responsibilities); 7 U.S.C. 136a–1(i)(1) (maintenance fee obligations); 7 U.S.C. 136e (production reporting requirements); 7 U.S.C. 136f (recordkeeping requirements).

Moreover, retention of these registrations will not make chlorpyrifos products available for use as the commenters desire. EPA issued a rule in the **Federal Register** revoking chlorpyrifos tolerances on August 30, 2021 (86 FR 48315) (FRL–5993–04–OCSPP). Chlorpyrifos tolerances expired six months later with the issuance of the Order published in the **Federal Register** on February 28, 2022 (87 FR 11222) (FRL–5993–05–OCSPP). The revocation of the tolerances means that application of chlorpyrifos to food crops will result in adulterated food which cannot be shipped in interstate commerce. While cancellation of the 14 products in Table 1 and amendment of three products in Table 2 does not terminate the last of the chlorpyrifos products registered in the United States, these products (and other remaining chlorpyrifos products) cannot be applied to food crops that will be shipped in interstate commerce.

Regarding the comment from the private citizen, EPA regulates both the import and export of pesticides, but the Agency does not have jurisdiction over the use of pesticides outside of the United States. FIFRA Section 17(a) allows for the distribution of unregistered pesticides produced solely for export, as long as certain conditions are met (7 U.S.C. 136o(a)). Otherwise, all registered pesticides that are exported to other countries must bear the product label approved by EPA. For additional information on importing or exporting chlorpyrifos, please consult EPA's web page on Importing and Exporting Pesticides at *https://www.epa.gov/pesticides/international-activities-related-pesticides*.

Any pesticide residues in or on food that is imported into the United States must be covered by a tolerance or exemption from the requirement of a tolerance, just the same as any pesticide residues applied to food in the United States. Since there are no current tolerances for residues of chlorpyrifos in or on food, food containing chlorpyrifos residues cannot be imported into the United States, unless the chlorpyrifos residues on that food fall within the Channels of Trade guidance for chlorpyrifos residues that the U.S. Food and Drug Administration (FDA) released last year. This guidance is available at: *https://www.fda.gov/regulatory-information/search-fda-guidance-documents/guidance-industry-questions-and-answers-regarding-channels-trade-policy-human-food-commodities*. FDA has stated in its channels of trade policy that it intends to subject the importation of any food bearing a residue (within the former tolerance) of a pesticide chemical for which a tolerance has been revoked, suspended, or modified to the same enforcement approach as for domestic food.

For the reasons above, EPA has determined that these comments do not merit further review or a denial of the cancellations and amendments described in Tables 1 and 2 of Unit I.

IV. The Cancellation Order

Pursuant to FIFRA section 6(f) (7 U.S.C. 136d(f)(1)), EPA hereby approves the requested cancellations and amendments of the registrations identified in Table 1 and Table 2 of Unit I. Accordingly, the Agency hereby orders that the product registrations identified in Table 1 of Unit I. are cancelled.

The cancellations and amendments addressed in this Order are effective May 4, 2023. Any distribution, sale, or use of existing stocks of the products identified in Tables 1 and 2 of Unit I. in a manner inconsistent with any of the provisions for disposition of existing stocks set forth in Unit V. will be a violation of FIFRA.

V. What is the Agency's authority for taking these actions?

Section 6(f)(1) of FIFRA (7 U.S.C. 136d(f)(1)) provides that a registrant of a pesticide product may at any time request that any of its pesticide registrations be cancelled or amended to terminate one or more registered uses. FIFRA further provides that, before acting on the request, EPA must publish a notice of receipt of any such request in the **Federal Register**.

Section 6(f)(1)(B) of FIFRA (7 U.S.C. 136d(f)(1)(B)) requires that before acting on a request for voluntary cancellation, EPA must provide a 30-day public comment period on the request for voluntary cancellation or use termination. Following the public comment period, the EPA Administrator may approve such a request. The notice for this action was published for comment in the **Federal Register** on December 13, 2022 (87 FR 76191) (FRL–10469–01–OCSPP). The 30-day public comment period closed on January 12, 2023.

VI. Provisions for Disposition of Existing Stocks

Existing stocks are those stocks of registered pesticide products that are currently in the United States and that were packaged, labeled, and released for shipment prior to the effective date of the cancellation action.

Because all chlorpyrifos tolerances expired on February 28, 2022, use of chlorpyrifos in or on food will result in adulterated food, which cannot be delivered into interstate commerce. Such use would be inconsistent with the provisions of FIFRA. EPA is allowing use of existing stocks of chlorpyrifos products identified in Tables 1 and 2 until those existing stocks are exhausted, only for non-food uses identified on the existing labels, as long as such use is consistent with the label. All other use of existing stocks of these chlorpyrifos products are prohibited.

None of the registrants listed in this order have requested any continued sale of existing stocks of the registrations subject to this cancellation order; however, Adama and Corteva have requested that EPA allow for the return of existing stocks that are in the hands of end users and distributors to the respective registrant. Because sale and distribution of chlorpyrifos products for use on food is inconsistent with the purposes of FIFRA, all sale and distribution of the chlorpyrifos products identified in Table 1 and Table 2 of Unit

I. is prohibited, except for export consistent with FIFRA section 17 (7 U.S.C. 136o); for proper disposal; or consistent with the terms of the individual return program agreements EPA has approved for Adama and Corteva. The return program agreements were approved by the Agency on April 19, 2023. Adama and Corteva were notified of the approval of their return program agreements on April 20, 2023.

Additional information regarding chlorpyrifos return programs for Adama and Corteva may be found in *https://www.regulations.gov/docket/EPA-HQ-OPP-2021-0523* or by contacting the registrants at: Adama (866) 406–6262; *ordergroup@adama.com* and Corteva (800) 258–3033.

Dated: April 28, 2023.

Mary Elissa Reaves,

Director, Pesticide Re-Evaluation Division, Office of Pesticide Programs.

[FR Doc. 2023–09396 Filed 5–3–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPPT–2023–0098; FRL–10582–02–OCSPP]

Certain New Chemicals or Significant New Uses; Statements of Findings for February 2023

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Toxic Substances Control Act (TSCA) requires EPA to publish in the **Federal Register** a statement of its findings after its review of certain TSCA submissions when EPA makes a finding that a new chemical substance or significant new use is not likely to present an unreasonable risk of injury to health or the environment. Such statements apply to premanufacture notices (PMNs), microbial commercial activity notices (MCANs), and significant new use notices (SNUNs) submitted to EPA under TSCA. This document presents statements of findings made by EPA on such submissions during the period from February 1, 2023 to February 28, 2023.

ADDRESSES: The docket for this action, identified by docket identification (ID) number EPA–HQ–OPPT–2023–0098, is available online at *https://www.regulations.gov* or in-person at the Office of Pollution Prevention and Toxics Docket (OPPT Docket), Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave. NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the OPPT Docket is (202) 566–0280. For the latest status information on EPA/DC services and docket access, visit *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT:

For technical information contact: Rebecca Edelstein, New Chemical Division (7405M), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001; telephone number: (202) 564–1667 email address: *edelstein.rebecca@epa.gov.*

For general information contact: The TSCA-Hotline, ABVI-Goodwill, 422 South Clinton Ave., Rochester, NY 14620; telephone number: (202) 554–1404; email address: *TSCA-Hotline@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. Executive Summary

A. Does this action apply to me?

This action provides information that is directed to the public in general.

B. What action is the Agency taking?

This document lists the statements of findings made by EPA after review of submissions under TSCA section 5(a) that certain new chemical substances or significant new uses are not likely to present an unreasonable risk of injury to health or the environment. This document presents statements of findings made by EPA during the reporting period.

C. What is the Agency's authority for taking this action?

TSCA section 5(a)(3) requires EPA to review a submission under TSCA section 5(a) and make one of several specific findings pertaining to whether the substance may present unreasonable risk of injury to health or the environment. Among those potential findings is that the chemical substance or significant new use is not likely to present an unreasonable risk of injury to health or the environment per TSCA section 5(a)(3)(C).

TSCA section 5(g) requires EPA to publish in the **Federal Register** a statement of its findings after its review of a submission under TSCA section 5(a) when EPA makes a finding that a new chemical substance or significant new use is not likely to present an unreasonable risk of injury to health or the environment. Such statements apply to PMNs, MCANs, and SNUNs submitted to EPA under TSCA section 5.

Anyone who plans to manufacture (which includes import) a new chemical substance for a non-exempt commercial purpose and any manufacturer or processor wishing to engage in a use of a chemical substance designated by EPA as a significant new use must submit a notice to EPA at least 90 days before commencing manufacture of the new chemical substance or before engaging in the significant new use.

The submitter of a notice to EPA for which EPA has made a finding of ''not likely to present an unreasonable risk of injury to health or the environment'' may commence manufacture of the chemical substance or manufacture or processing for the significant new use notwithstanding any remaining portion of the applicable review period.

D. Does this action have any incremental economic impacts or paperwork burdens?

No.

II. Statements of Findings Under TSCA Section 5(a)(3)(C)

In this unit, EPA provides the following information (to the extent that such information is not claimed as Confidential Business Information (CBI)) on the PMNs, MCANs and SNUNs for which, during this period, EPA has made findings under TSCA section 5(a)(3)(C) that the new chemical substances or significant new uses are not likely to present an unreasonable risk of injury to health or the environment:

The following list provides the EPA case number assigned to the TSCA section 5(a) submission and the chemical identity (generic name if the specific name is claimed as CBI).

- P–22–0051, 2,5-Furandione, dihydro-, monopolyisobutylene derivs., reaction products with substituted alkylamine (Generic Name).

To access EPA's decision document describing the basis of the ''not likely to present an unreasonable risk'' finding made by EPA under TSCA section 5(a)(3)(C), look up the specific case number at *https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/chemicals-determined-not-likely.*

Authority: 15 U.S.C. 2601 *et seq.*

Dated: April 27, 2023.

Shari Barash,

Acting Director, New Chemicals Division, Office of Pollution Prevention and Toxics.

[FR Doc. 2023–09423 Filed 5–3–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–10918–01–OAR]

Proposed Information Collection Request; Comment Request; Information Collection Request for the Greenhouse Gas Reporting Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA) is planning to submit an information collection request (ICR), ''Information Collection Request for the Greenhouse Gas Reporting Program'' (EPA ICR No. 2300.20, OMB Control No. 2060–0629) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act. Before doing so, EPA is soliciting public comments on specific aspects of the proposed information collection as described below. This is a proposed extension of the ICR, which is currently approved through March 31, 2024. 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.

DATES: Comments must be submitted on or before July 3, 2023.

ADDRESSES: Submit your comments, referencing Docket ID No. EPA–HQ–OAR–2022–0883, online using *www.regulations.gov* (our preferred method), or by mail to: EPA Docket Center, Environmental Protection Agency, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.

EPA's policy is that all comments received will be included in the public docket without change including any personal information provided, unless the comment includes profanity, threats, information claimed to be Confidential Business Information (CBI), or other information whose disclosure is restricted by statute.

FOR FURTHER INFORMATION CONTACT: Joe Ford, Climate Change Division, Office of Atmospheric Protection, Office of Air and Radiation (MAIL CODE 6207A), Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: 202–564–7659; fax number: 202–343–2342; email address: *GHGReporting@epa.gov.*

SUPPLEMENTARY INFORMATION: Supporting documents which explain in detail the information that the EPA will be collecting are available in the public docket for this ICR. The docket can be viewed online at *www.regulations.gov* or in person at the EPA Docket Center, WJC West, Room 3334, 1301 Constitution Ave. NW, Washington, DC. The telephone number for the Docket Center is 202–566–1744. For additional information about EPA's public docket, visit *http://www.epa.gov/dockets.*

Pursuant to section 3506(c)(2)(A) of the PRA, EPA is soliciting comments and information to enable it to (i) 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; (ii) 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; (iii) enhance the quality, utility, and clarity of the information to be collected; and (iv) 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. EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval. At the time, EPA will issue another **Federal Register** notice to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB.

Abstract: In response to the FY2008 Consolidated Appropriations Act (H.R. 2764; Pub. L. 110–161) and under authority of the Clean Air Act, the EPA finalized the Mandatory Reporting of Greenhouse Gases Rule (GHG Reporting Rule) (74 FR 56260; October 30, 2009). The GHG Reporting Rule, which became effective on December 29, 2009, establishes reporting requirements for certain large facilities and suppliers. It does not require control of greenhouse gases. Instead, it requires that sources emitting greenhouse gases, supplying certain products that contain greenhouse gases, or injecting carbon dioxide (CO2) underground in quantities above certain threshold levels of carbon dioxide equivalent (CO2 e) monitor and report their annual emissions.

Subsequent rules have promulgated requirements for additional facilities, suppliers, and mobile sources; provided clarification and corrections to existing requirements; finalized confidentiality business information (CBI) determinations, amended recordkeeping requirements, and implemented an alternative verification approach. Collectively, the GHG Reporting Rule and its associated rulemakings are referred to as the Greenhouse Gas Reporting Program (GHGRP).

The purpose for this ICR is to renew and revise the GHG Reporting Rule ICR to update and consolidate the burdens and costs imposed by the current ICR under the GHGRP.

Form Numbers: None.

Respondents/affected entities: Facilities emitting GHGs, supplying certain products that contain GHGs, or injecting carbon dioxide (CO2) underground in quantities above certain threshold levels of CO2 equivalent (CO2e).

Respondent's obligation to respond: Mandatory (42 U.S.C. 7401–7671q.).

Estimated number of respondents (annual average): 12,434.

Frequency of response: Annually.

Total estimated burden: 705,554 hours per year.

Total estimated cost: $95,175,521 per year.

Changes in Estimates: There is a decrease of 34,458 hours in the total estimated respondent burden compared with that identified in the last ICR renewal. Furthermore, the annual public reporting and recordkeeping burden for this collection of information is estimated to average 0.07 hours per response. The last ICR estimated an average burden of 0.08 hours per response. This change in burden reflects an adjustment in the number of respondents from projected to actual, an adjustment of labor rates and capital and O&M costs to reflect 2021 dollars. Burden means 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. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements which have subsequently changed; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information;

and transmit or otherwise disclose the information.

Sharyn Lie,

Acting Director, Climate Change Division, Office of Atmospheric Protection, Office of Air and Radiation.

[FR Doc. 2023–09524 Filed 5–3–23; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–xxxx, OMB 3060–0236, OMB 3060–0248 and 3060–0250; FR ID 138975]

Information Collections Being Reviewed by the Federal Communications Commission

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act of 1995 (PRA), the Federal Communications Commission (FCC or Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees. The FCC may not conduct or sponsor a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

DATES: Written PRA comments should be submitted on or before July 3, 2023. If you anticipate that you will be submitting comments but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all PRA comments to Cathy Williams, FCC, via email to *PRA@fcc.gov* and to *Cathy.Williams@fcc.gov*.

FOR FURTHER INFORMATION CONTACT: For additional information about the information collection, contact Cathy Williams at (202) 418–2918.

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–0250.

Title: Sections 73.1207, 74.784, and 74.1284, Rebroadcasts.

Form Number: N/A.

Respondents: Businesses or other for-profit entities, Not for-profit institutions and State, local or Tribal Governments.

Type of Review: Revision of a currently approved collection.

Number of Respondents and Responses: 6,462 respondents and 11,012 responses.

Estimated Time per Response: 0.50 hours.

Frequency of Response: Recordkeeping requirement; on occasion reporting requirement; semi-annual reporting requirement; third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this information collection is contained in Sections 154(i) and 325(a) of the Communications Act of 1934, as amended.

Total Annual Burden: 5,506 hours.

Total Annual Cost: No cost.

Needs and Uses: The Commission adopted on April 17, 2023, the *Report and Order (R&O),* In the Matter of Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television and Television Translator Stations, Update of Parts 74 of the Commission's Rules Related to Low Power Television and Television Translator Stations, MB Docket Nos. 03–185 and 22–261, FCC 23–25. The *Report and Order* adopted the following revision to 47 CFR 74.784(b):

47 CFR 74.784(b) states that a licensee of a low power television or TV translator station shall not rebroadcast the programs of any other TV broadcast station without obtaining prior consent of the station whose signals or programs are proposed to be retransmitted. Section 74.784(b) requires licensees of low power television and TV translator stations to notify the Commission when rebroadcasting programs or signals of another station. This notification shall include the call letters of each station rebroadcast. The licensee of the low power television or TV translator station shall certify that written consent has been obtained from the licensee of the station whose programs are retransmitted. This notification shall be provided by email to *TVRebroadcast@fcc.gov,* the Media Bureau, Video Division's email box.

The information collection requirements contained in 47 CFR 73.1207 and 74.1284 remain the same. They are as follows:

47 CFR 73.1207 requires that licensees of broadcast stations obtain written permission from an originating station prior to retransmitting any program or any part thereof. A copy of the written consent must be kept in the station's files and made available to the FCC upon request. Section 73.1207 also specifies procedures that broadcast stations must follow when rebroadcasting time signals, weather bulletins, or other material from non-broadcast services.

47 CFR 74.1284 requires that the licensee of a FM translator station obtain prior consent to rebroadcast programs of any broadcast station or other FM translator. The licensee of the FM translator station must notify the Commission of the call letters of each station rebroadcast and must certify that written consent has been received from the licensee of that station. Also, AM stations are allowed to use FM translator stations to rebroadcast the AM signal. FM translator stations are low power facilities licensed for the limited purpose of retransmitting the signals of either a full power radio station or another translator station. *See* 47 CFR 74.1201.

OMB Control Number: 3060–0236.

Title: Section 74.703, Interference.

Form Number: N/A.

Respondents: Businesses or other for-profit entities, State, local or Tribal Governments and Not for-profit institutions.

Type of Review: Reinstatement of a previously approved collection.

Number of Respondents and Responses: 50 respondents and 50 responses.

Estimated Time per Response: 2 hours.

Frequency of Response: On occasion reporting requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this collection is contained in Section 154(i) of the Communications Act of 1934, as amended.

Total Annual Burden: 100 hours.

Total Annual Cost: $100,000.

Needs and Uses: The Commission adopted on April 17, 2023, the *Report and Order (R&O),* In the Matter of Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television and Television Translator Stations, Update of Parts 74 of the Commission's Rules

Related to Low Power Television and Television Translator Stations, MB Docket Nos. 03–185 and 22–261, FCC 23–25. The *Report and Order* adopted the following revision to 47 CFR 74.703(h):

47 CFR 74.703(h) requires in each instance where suspension of operation is required, the licensee shall submit a full report to the FCC via a Resumption of Operations notice in the Commission's Licensing and Management System (LMS) after operation is resumed, containing details of the nature of the interference, the source of the interfering signals, and the remedial steps taken to eliminate the interference.

The Commission is reinstating OMB control number 3060–0236 back into the Office of Management and Budget's (OMB) inventory. However, the Commission adopted on October 25, 2021, the Order (*Order*), In the Matter of Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auction, GN Docket No. 12–268. The *Order* adopted a number of changes, including removing 47 CFR 74.703(f) and 74.703(g). This means that collection 3060–0236 now only covers the information collection requirements covered under 47 CFR 74.703(h).

OMB Control Number: 3060–0248.

Title: Section 74.751, Modification of Transmission Systems.

Form Number: N/A.

Respondents: Businesses or other for-profit entities, Not for-profit institutions and State, local or Tribal Governments.

Type of Review: Revision of a currently approved collection.

Number of Respondents and Responses: 400 respondents and 400 responses.

Estimated Time per Response: 0.50 hours.

Frequency of Response: On occasion reporting requirement; Recordkeeping requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this collection is contained in Section 154(i) of the Communications Act of 1934, as amended.

Total Annual Burden: 200 hours.

Total Annual Cost: No cost.

Needs and Uses: The Commission adopted on April 17, 2023, the *Report and Order (R&O),* In the Matter of Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television and Television Translator Stations, Update of Parts 74 of the Commission's Rules Related to Low Power Television and Television Translator Stations, MB Docket Nos. 03–185 and 22–261, FCC 23–25. The *Report and Order* adopted the following revisions to 47 CFR 74.751:

47 CFR 74.751(a) requires licensees of low power TV or TV translator stations to send written notification to the FCC of equipment changes which may be made at licensee's discretion without the use of a formal application.

47 CFR 74.751(b)(4) requires low power TV or TV translator stations to file an application in the Commission's Licensing and Management System (LMS) on FCC Form 2100, Schedule C, requesting authorization for all antenna relocations.

47 CFR 74.751(c) provides that notwithstanding the requirement in 47 CFR 74.751(b)(4), a station may file in LMS a correction of geographic coordinates where the change is 3 seconds or fewer in latitude and/or 3 seconds or fewer in longitude, provided there is no physical change in location and no other licensed parameters are changed. An exhibit should be attached to the application(s) specifying it is a coordinate correction. Stations seeking to correct coordinates by less than 3 seconds of latitude and/or longitude may do so without paying a filing fee.

47 CFR 74.751(d) requires that licensees of low power TV or TV translator stations place in the station records a certification that the installation of new or replacement transmitting equipment complies in all respects with the technical requirements of this section and the station authorization.

OMB Control Number: 3060-xxxx.

Title: Sections 74.734, 74.735, and 74.763, Electronic Filings

Form Number: N/A.

Respondents: Businesses or other for-profit entities, Not for-profit institutions and State, local or Tribal Governments.

Type of Review: New collection.

Number of Respondents and Responses: 50 respondents and 250 responses.

Estimated Time per Response: 2 hours.

Frequency of Response: On occasion reporting requirement; Recordkeeping requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this collection is contained in Section 154(i) of the Communications Act of 1934, as amended.

Total Annual Burden: 500 hours.

Total Annual Cost: $250,000.

Needs and Uses: The Commission adopted on April 17, 2023, the *Report and Order (R&O),* In the Matter of Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television and Television Translator Stations, Update of Parts 74 of the Commission's Rules Related to Low Power Television and Television Translator Stations, MB Docket Nos. 03–185 and 22–261, FCC 23–25. The *Report and Order* adopted a number of revisions to the Commission's rules to specify electronic rather than paper submission in the following instances:

47 CFR 74.734(a)(4) requires that a notification must be made with the Commission via a Change of Control Point Notice in the Commission's Licensing and Management System (LMS) providing the name, address, and telephone number of person(s) who may be called to secure suspension of operation of a transmitter promptly should the FCC deem such action necessary.

47 CFR 74.735(c)(4) requires that all azimuth plane patterns be plotted in a PDF attachment to the application in LMS in a size sufficient to be easily viewed. 47 CFR 74.735(c)(6) requires that all azimuth plane patterns be plotted in a PDF attachment to the application in LMS in a size sufficient to be easily viewed. 47 CFR 74.735(c)(7) requires that if a matrix pattern is submitted in the LMS application form, similar tabulations must be provided as necessary in the form of a spreadsheet attachment to the application in LMS to accurately represent the pattern.

47 CFR 74.763(b) provides that in the event that causes beyond the control of the low power or translator station licensee make it impossible to continue operating, the licensee may discontinue operation for a period of not more than 30 days without further authority from the FCC. 47 CFR 74.763(b) requires that no later than the tenth day of discontinued operation, notification must be sent electronically via a Suspension of Operations Notice filing in the Commission's LMS database. In the event normal operation is restored before the end of the 30 day period, the licensee must notify the FCC of the date that normal operations resumed by filing a Resumption of Operations Notice filing in LMS. Finally, Section 74.763(b) requires that if causes beyond the control of the licensee make it impossible to comply within the allowed period, a licensee may make a request for Special Temporary Authority via LMS no later than the 30th day for such additional time as may be necessary.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

[FR Doc. 2023–09406 Filed 5–3–23; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–0855; FR ID 139297]

Information Collection Being Reviewed by the Federal Communications Commission

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act (PRA) of 1995, the Federal Communications Commission (FCC or the Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collection. Comments are requested concerning: whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

The FCC may not conduct or sponsor a collection of information unless it displays a currently valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid Office of Management and Budget (OMB) control number.

DATES: Written PRA comments should be submitted on or before July 3, 2023. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all PRA comments to Nicole Ongele, FCC, via email *PRA@fcc.gov* and to *nicole.ongele@fcc.gov*.

FOR FURTHER INFORMATION CONTACT: For additional information about the information collection, contact Nicole Ongele, (202) 418–2991.

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–0855.

Title: Telecommunications Reporting Worksheets and Related Collections, FCC Forms 499–A and 499–Q.

Form Number(s): FCC Forms 499–A and 499–Q.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for profit and not-for-profit institutions.

Number of Respondents and Responses: 8,000 respondents; 40,300 responses.

Estimated Time per Response: 0.25 hours–25 hours.

Frequency of Response: Annually, quarterly, recordkeeping and on occasion reporting requirements.

Obligation To Respond: Mandatory. Statutory authority for this collection of information is contained in 151, 154(i), 154(j), 155, 157, 159, 201, 205, 214, 225, 254, 303(r), 715 and 719 of the Act, 47 U.S.C. 151, 154(i), 154(j), 155, 157, 159, 201, 205, 214, 225, 254, 303(r), 616, and 620.

Total Annual Burden: 250,850 hours.

Total Annual Cost: No cost.

Needs and Uses: This information collection requires contributors to the federal universal service fund, telecommunications relay service fund, and numbering administration to file, pursuant to sections 151, 225, 251 and 254 of the Act, a Telecommunications Reporting Worksheet on an annual basis (FCC Form 499–A and/or on a quarterly basis (FCC Form 499–Q). The information is also used to calculate FCC regulatory fees for interstate telecommunications service providers.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

[FR Doc. 2023–09409 Filed 5–3–23; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL DEPOSIT INSURANCE CORPORATION

[OMB No. 3064–0140; –0175]

Agency Information Collection Activities: Proposed Collection Renewal; Comment Request

AGENCY: Federal Deposit Insurance Corporation (FDIC).

ACTION: Notice and request for comment.

SUMMARY: The FDIC, as part of its obligations under the Paperwork Reduction Act of 1995, invites the general public and other Federal agencies to take this opportunity to comment on the request to renew the existing information collections described below (OMB Control No. 3064–0140 and –0175). The notices of the proposed renewal for these information collections were previously published in the **Federal Register** on March 2, 2023, allowing for a 60-day comment period.

DATES: Comments must be submitted on or before June 5, 2023.

ADDRESSES: Interested parties are invited to submit written comments to the FDIC by any of the following methods:

- *Agency Website: https://www.fdic.gov/resources/regulations/federal-register-publications/.*
- *Email: comments@fdic.gov.* Include the name and number of the collection in the subject line of the message.
- *Mail:* Manny Cabeza (202–898–3767), Regulatory Counsel, MB–3128, Federal Deposit Insurance Corporation, 550 17th Street NW, Washington, DC 20429.
- *Hand Delivery:* Comments may be hand-delivered to the guard station at the rear of the 17th Street NW building (located on F Street NW), on business days between 7:00 a.m. and 5:00 p.m.

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.* 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: Manny Cabeza, Regulatory Counsel, 202–898–3767, *mcabeza@fdic.gov,* MB–3128, Federal Deposit Insurance Corporation, 550 17th Street NW, Washington, DC 20429.

SUPPLEMENTARY INFORMATION:

Proposal to renew the following currently approved collection of information:

1. *Title:* Insurance Sales Consumer Protections.

OMB Number: 3064–0140.

Forms: None.

Affected Public: Insured State nonmember banks and savings associations that sell insurance products; persons who sell insurance in or on behalf of insured State nonmember banks and savings associations.

Burden Estimate:

SUMMARY OF ESTIMATED ANNUAL BURDEN

[OMB No. 3064–0140]

Information collection (obligation to respond)	Type of burden (frequency of response)	Number of respondents	Number of responses per respondent	Time per response (HH:MM)	Annual burden (hours)
1. Insurance Sales Consumer Protections, 12 CFR 343 (Mandatory).	Third Party Disclosure (On Occasion).	1,101	1	05:00	5,505
Total Annual Burden (Hours):					5,505

Source: FDIC.

General Description of Collection: Respondents must prepare and provide certain disclosures to consumers (*e.g.,* that insurance products and annuities are not FDIC-insured) and obtain consumer acknowledgments, at two different times: (1) Before the completion of the initial sale of an insurance product or annuity to a consumer; and (2) at the time of application for the extension of credit (if insurance products or annuities are sold, solicited, advertised, or offered in connection with an extension of credit). There is no change in the substance or methodology of this information collection. The decrease in burden is due solely to a decrease in the estimated number of respondents.

The disclosure requirements in this information collection apply to all FDIC-supervised IDIs that sell insurance products. According to recent Reports of Condition and Income (Call Report), there are currently 3,068 FDIC-supervised IDIs.[1] To estimate the number of IDIs that would be directly affected by this ICR, FDIC restricts the count to those IDIs that report income from the sale of insurance on their Call Reports. IDIs report income from insurance activities differently depending on which Call Report form they file. IDIs file Call Report form 051 if they have less than $1 billion in total assets and do not have any foreign offices, and they file forms 031 or 041 otherwise. IDIs that file form 051 report income from insurance activities on Call Report schedule RI line 5(d) 2, while IDIs that file forms 031 or 041 report income from annuity sales, underwriting income from insurance and reinsurance activities, and other income from insurance activities on Call Report schedule RI lines 5(d) 3–5.

As of September 30, 2022, 321 FDIC-supervised IDIs reported non-zero values of income from annuity sales, underwriting income from insurance and reinsurance activities, or income from other insurance activities on Call Report forms 031 or 041. Another 780 FDIC-supervised IDIs reported non-zero values of income from insurance activities on Call Report form 051.[2] Accordingly, the estimated number of respondents for this information collection is 1,101.[3]

2. *Title:* Interagency Guidance on Sound Incentive Compensation Policies

OMB Number: 3064–0175.

Forms: None.

Affected Public: Insured state nonmember banks and state savings associations.

Burden Estimate:

SUMMARY OF ESTIMATED ANNUAL BURDEN

[OMB No. 3064–0175]

Information collection (obligation to Respond)	Type of burden (frequency of response)	Number of respondents	Number of responses per respondent	Time per response (HH:MM)	Annual burden (hours)
1. Initial documentation: Interagency Guidance on Sound Incentive Compensation Practices, 75 FR 36395 (Voluntary).	Recordkeeping (Annual)	1	1	40:00	40
2. Revision of initial documentation: Interagency Guidance on Sound Incentive Compensation Practices, 75 FR 36395 (Voluntary).	Recordkeeping (Annual)	1,985	1	02:00	3,970
Total Annual Burden (Hours):					4,010

Source: FDIC.

General Description of Collection: This Guidance helps promote that incentive compensation policies at insured state non-member banks do not encourage excessive risk-taking and are consistent with the safety and soundness of the organization. Under this Guidance, banks are encouraged to: (i) Have policies and procedures that identify and describe the role(s) of the personnel and units authorized to be involved in incentive compensation arrangements, identify the source of significant risk-related inputs, establish appropriate controls governing these inputs to help ensure their integrity, and identify the individual(s) and unit(s) whose approval is necessary for the establishment or modification of incentive compensation arrangements; (ii) create and maintain sufficient documentation to permit an audit of the organization's processes for incentive compensation arrangements; (iii) have any material exceptions or adjustments to the incentive compensation arrangements established for senior executives approved and documented by its board of directors; and (iv) have its board of directors receive and review, on an annual or more frequent basis, an assessment by management of the effectiveness of the design and operation of the organization's incentive compensation system in providing risk taking incentives that are consistent

[1] FDIC Call Report data, September 2022.

[2] *Id.*

[3] 321 + 780 = 1,101.

with the organization's safety and soundness. There is no change in the substance or methodology of this information collection. The change in burden is due to a decrease in the estimated number of respondents. The burden hours decreased by 358 from 4,368 to 4,010.

Request for Comment

Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the FDIC's functions, including whether the information has practical utility; (b) the accuracy of the estimates of the burden of the information collection, including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. All comments will become a matter of public record.

Federal Deposit Insurance Corporation.

Dated at Washington, DC, on April 28, 2023.

James P. Sheesley,

Assistant Executive Secretary.

[FR Doc. 2023–09529 Filed 5–3–23; 8:45 am]

BILLING CODE 6714–01–P

FEDERAL DEPOSIT INSURANCE CORPORATION

Update to Notice of Financial Institutions for Which the Federal Deposit Insurance Corporation Has Been Appointed Either Receiver, Liquidator, or Manager

AGENCY: Federal Deposit Insurance Corporation.

ACTION: Update listing of financial institutions in liquidation.

SUMMARY: Notice is hereby given that the Federal Deposit Insurance Corporation (Corporation) has been appointed the sole receiver for the following financial institution effective as of the Date Closed as indicated in the listing.

SUPPLEMENTARY INFORMATION: This list (as updated from time to time in the **Federal Register**) may be relied upon as ''of record'' notice that the Corporation has been appointed receiver for purposes of the statement of policy published in the July 2, 1992, issue of the **Federal Register** (57 FR 29491). For further information concerning the identification of any institutions which have been placed in liquidation, please visit the Corporation website at *www.fdic.gov/bank/individual/failed/banklist.html,* or contact the Chief, Receivership Oversight at *RO@fdic.gov* or at Division of Resolutions and Receiverships, FDIC, 600 North Pearl Street, Suite 700, Dallas, TX 75201.

INSTITUTIONS IN LIQUIDATION

[In alphabetical order]

FDIC ref. No.	Bank name	City	State	Date closed
10543	First Republic Bank	San Francisco	CA	05/01/2023

Federal Deposit Insurance Corporation.

Dated at Washington, DC, on May 1, 2023.

James P. Sheesley,

Assistant Executive Secretary.

[FR Doc. 2023–09528 Filed 5–3–23; 8:45 am]

BILLING CODE 6714–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[30Day–23–1027]

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 ''Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery'' 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 6, 2023, to obtain comments from the public and affected agencies. CDC received one comment 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.* 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

Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery (OMB Control No. 0920–1027, Exp. 8/31/2023)—Extension—National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

CDC is requesting a three-year Extension for the Generic ICR titled Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery. During the past three-year approval period, CDC has submitted eight GenICs consisting of 750 responses. The collections included web-based surveys, focus groups, and assessments. The information collection activities conducted under this extension will continue to garner qualitative customer and stakeholder feedback in an efficient, timely manner, in accordance with the Administration's commitment to improving service delivery. By qualitative feedback we mean information that provides useful insights on perceptions and opinions but are not statistical surveys that yield quantitative results that can be generalized to the population of study. This feedback will provide insights into customer or stakeholder perceptions, experiences and expectations, provide an early warning of issues with service, or focus attention on areas where communication, training, or changes in operations might improve delivery of products or services. These collections will allow for ongoing, collaborative, and actionable communications between CDC and its customers and stakeholders. It will also allow feedback to contribute directly to the improvement of program management.

Feedback collected under this Generic Clearance will continue to provide useful information, but it will not yield data that can be generalized to the overall population. This type of Generic Clearance for qualitative information will not be used for quantitative information collections that are designed to yield reliably actionable results, such as monitoring trends over time or documenting program performance. Such data uses require more rigorous designs that address: (1) the target population to which generalizations will be made; (2) the sampling frame; (3) the sample design (including stratification and clustering); (4) the precision requirements or power calculations that justify the proposed sample size; (5) the expected response rate; (6) methods for assessing potential non-response bias; (7) the protocols for data collection; and 8) any testing procedures that were or will be undertaken prior fielding the study. Depending on the degree of influence the results are likely to have, such collections may still be eligible for submission for other Generic mechanisms that are designed to yield quantitative results.

Respondents will be screened and selected from Individuals and Households, Businesses, Organizations, and/or State, Local or Tribal Government. Below we provide CDC's projected annualized estimate for the next three years. There is no cost to respondents other than their time. The estimated annualized burden hours for this data collection activity are 9,690.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondent	Type of collection	Number of respondents	Annual frequency per response	Hours per response
Individuals and Households, Businesses, Organizations, and/or State, Local or Tribal Government.	Online surveys	10,500	1	30/60
	Discussion Groups	280	1	120/60
	Focus groups	640	1	120/60
	Website/app usability testing	2,000	1	30/60
	Interviews	800	1	120/60

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. 2023–09518 Filed 5–3–23; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day–23–1359; Docket No. CDC–2023–0034]

Proposed Data Collection Submitted for Public Comment and Recommendations

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice with comment period.

SUMMARY: The Centers for Disease Control and Prevention (CDC), as part of its continuing effort to reduce public burden and maximize the utility of government information, invites the general public and other federal agencies the opportunity to comment on a continuing information collection, as required by the Paperwork Reduction Act of 1995. This notice invites comment on a proposed information collection project titled National Survey of Syringe Services Programs (NSSSP). This data collection which proposes assess and monitor SSP operational characteristics and services, funding resources, community relations, and key operational and programmatic successes and challenges, and support timely analysis and dissemination of national program evaluation survey findings.

DATES: CDC must receive written comments on or before July 3, 2023.

ADDRESSES: You may submit comments, identified by Docket No. CDC–2021–0034 by either of the following methods:

- *Federal eRulemaking Portal: www.regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Jeffrey M. Zirger, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE, MS H21–8, Atlanta, Georgia 30329.

Instructions: All submissions received must include the agency name and Docket Number. CDC will post, without change, all relevant comments to *www.regulations.gov.*

Please note: Submit all comments through the Federal eRulemaking portal (*www.regulations.gov*) or by U.S. mail to the address listed above.

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the information collection plan and instruments, contact Jeffrey M. Zirger, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE, MS H21–8, Atlanta, Georgia 30329; Telephone: 404–639–7570; Email: *omb@cdc.gov.*

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. In addition, the PRA also

requires federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each new proposed collection, each proposed extension of existing collection of information, and each reinstatement of previously approved information collection before submitting the collection to the OMB for approval. To comply with this requirement, we are publishing this notice of a proposed data collection as described below.

The OMB is particularly interested in comments that will help:

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;
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 submissions of responses; and
5. Assess information collection costs.

Proposed Project

The National Survey of Syringe Services Programs (NSSSP) (OMB Control No. 0920–1359, Exp. 12/31/2024)—Revision—National Center for HIV, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), Centers for Disease Control and Prevention, Centers for Disease Control and Prevention (CDC).

Background and Brief Description

The primary purpose of the National Survey of Syringe Services Programs (NSSSP) is to strengthen and improve the ability of CDC and local and state partners to monitor and evaluate syringe services programs (SSPs) nationally, with the overall goal of supporting, sustaining, and improving SSPs nationwide and reducing infectious disease and other harms related to drug use. Findings from the 2020–2021 survey successfully characterized operational characteristics and services, funding resources, community relations, and key operational successes and challenges. The 2022 survey is currently being implemented. Revisions are being requested to address the increasing number of SSPs nationwide, the changing landscape of drug use nationally, additional SSP supplies and services provided, and ways in which SSPs are developing strategies to address the needs of PWUD.

The project will include all SSPs that are listed in a publicly available directory of all known SSPs in the United States maintained by the North American Syringe Exchange Network (NASEN; *https://nasen.org*). The project will also include SSPs in NASEN's directory that do not wish to be publicly listed but have agreed to be contacted for research purposes, SSPs belonging to NASEN's buyers' club that are not part of the directory, respondents to prior RTI Arnold Ventures Surveys of SSPs that are not part of NASEN's directory, and other SSPs proactively identified through searching state health department websites, funding agencies, state and regional networks, regional conferences, partner organization networks or webinars and via social media. SSPs will be sent a letter of invitation to participate in a 35-minute program survey. Participating programs will have the option of completing the survey via different modalities to enhance feasibility and comfort in completing the survey, for example via the Research Electronic Data Capture (REDCap) or a similarly secure web-based application. Other modalities for survey administration will include a coordinated telephone or videoconferencing interview. SSPs will be sent reminder letters for an approximately six-month data collection period. SSPs that do not respond to prior reminders will be sent one final reminder, and if the SSP still does not want to participate, one (optional) question on why the SSP did not complete the survey will be offered. The survey will include questions on operational characteristics and services, funding resources, community relations, and key operational successes and challenges.

Approximately 800 SSPs will be able to participate in the survey. We anticipate that approximately 20% of SSPs will decline to complete the survey, yielding approximately 640 completed surveys per year. However, given that it is challenging to predict future response rates, we are requesting enough burden hours to allow 100% of SSPs to respond to the survey. We estimate that it will take 35 minutes to complete the survey, regardless of how the respondent chooses to complete it (*i.e.,* self-administered online or interviewer-administered by phone or videoconferencing).

CDC requests OMB approval for an estimated 494 annual burden hours. There is no cost to respondents other than their time to participate.

ESTIMATES OF ANNUALIZED BURDEN HOURS

All participating SSPs	National Syringe Services Program Evaluation Survey.	800	1	35/60	467
Non-responding SSPs	Non-Response Survey Item	800	1	2/60	27
Total					494

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. 2023–09519 Filed 5–3–23; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[Document Identifier: CMS–10398 #59]

Medicaid and Children's Health Insurance Program (CHIP) Generic Information Collection Activities: Proposed Collection; Comment Request

AGENCY: Centers for Medicare & Medicaid Services, Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: On May 28, 2010, the Office of Management and Budget (OMB) issued Paperwork Reduction Act (PRA) guidance related to the ''generic'' clearance process. Generally, this is an expedited process by which agencies may obtain OMB's approval of collection of information requests that are ''usually voluntary, low-burden, and uncontroversial collections,'' do not raise any substantive or policy issues, and do not require policy or methodological review. The process requires the submission of an overarching plan that defines the scope of the individual collections that would fall under its umbrella. On October 23, 2011, OMB approved our initial request to use the generic clearance process under control number 0938–1148 (CMS–10398). It was last approved on April 26, 2021, via the standard PRA process which included the publication of 60- and 30-day **Federal Register** notices. The scope of the April 2021 umbrella accounts for Medicaid and CHIP State plan amendments, waivers, demonstrations, and reporting. This **Federal Register** notice seeks public comment on one or more of our collection of information requests that we believe are generic and fall within the scope of the umbrella. Interested persons are invited to submit comments regarding our burden estimates or any other aspect of this collection of information, including: the necessity and utility of the proposed information collection for the proper performance of the agency's functions, the accuracy of the estimated burden, ways to enhance the quality, utility and clarity of the information to be collected, and the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

DATES: Comments must be received by May 17, 2023.

ADDRESSES: When commenting, please reference the applicable form number (CMS–10398 #59) and the OMB control number (0938–1148). To be assured consideration, comments and recommendations must be submitted in any one of the following ways:

1. *Electronically.* You may send your comments electronically to *http://www.regulations.gov.* Follow the instructions for ''Comment or Submission'' or ''More Search Options'' to find the information collection document(s) that are accepting comments.

2. *By regular mail.* You may mail written comments to the following address:

CMS, Office of Strategic Operations and Regulatory Affairs, Division of Regulations Development, Attention: CMS–10398 #59/0938–1148, Room C4–26–05, 7500 Security Boulevard, Baltimore, Maryland 21244–1850.

To obtain copies of a supporting statement and any related forms for the proposed collection(s) summarized in this notice, please access the CMS PRA website by copying and pasting the following web address into your web browser: *https://www.cms.gov/regulations-and-guidance/legislation/paperworkreductionactof1995/pra-listing.*

FOR FURTHER INFORMATION CONTACT: William N. Parham at (410) 786–4669.

SUPPLEMENTARY INFORMATION: Following is a summary of the use and burden associated with the subject information collection(s). More detailed information can be found in the collection's supporting statement and associated materials (see **ADDRESSES**).

Generic Information Collection

1. *Title of Information Collection:* Medicaid Section 1115 Severe Mental Illness and Children with Serious Emotional Disturbance Demonstrations; *Type of Information Collection Request:* Revision of an existing generic information collection request; *Use:* States with approved serious mental illness (SMI) demonstrations are required to develop implementation and monitoring plans, including monitoring metrics, monitoring protocol, regular monitoring reports describing their implementation progress, and availability assessments. In addition, the Medicaid Section 1115 demonstration monitoring and evaluation Special Terms and Conditions specify that states are required to submit in their regular monitoring reports, information on milestones and performance measures that they elected to represent key indicators of progress toward meeting the goals for the demonstrations. To improve the quality and efficiency of the reporting requirements, CMS in conjunction with state advisory groups developed a set of standardized monitoring tools for states to use for their regular reporting. In this 2023 collection of information request, States continue to use our currently approved reporting tools. As part of the meta-analysis, we also propose to add virtual interviews with behavioral health providers in states that have approved section 1115 SMI demonstrations. Our burden estimates have been updated to account for changes in the tools and the virtual interviews with behavioral health providers. *Form Number:* CMS–10398 #59 (OMB control number: 0938–1148); *Frequency:* Yearly, quarterly, and once; *Affected Public:* State, Local, or Tribal Governments; *Number of Respondents:* 15; *Total Annual Responses:* 282; *Total Annual Hours:* 3,725. For policy questions regarding this collection contact Danielle Daly at 443–379–3289.

Dated: May 1, 2023.

William N. Parham, III,

Director, Paperwork Reduction Staff, Office of Strategic Operations and Regulatory Affairs.

[FR Doc. 2023–09511 Filed 5–3–23; 8:45 am]

BILLING CODE 4120–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[Document Identifiers: CMS–855A, CMS–R–246 and CMS–10823]

Agency Information Collection Activities: Submission for OMB Review; Comment Request

AGENCY: Centers for Medicare & Medicaid Services, Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Medicare & Medicaid Services (CMS) is announcing an opportunity for the public to comment on CMS' intention to collect information from the public. Under the Paperwork Reduction Act of 1995 (PRA), federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension or reinstatement of an existing collection of information, and to allow a second opportunity for public comment on the notice. Interested persons are invited to send comments regarding the burden estimate or any

other aspect of this collection of information, including the necessity and utility of the proposed information collection for the proper performance of the agency's functions, the accuracy of the estimated burden, ways to enhance the quality, utility, and clarity of the information to be collected, and the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

DATES: Comments on the collection(s) of information must be received by the OMB desk officer by June 5, 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*. Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

To obtain copies of a supporting statement and any related forms for the proposed collection(s) summarized in this notice, please access the CMS PRA website by copying and pasting the following web address into your web browser: *https://www.cms.gov/Regulations-and-Guidance/Legislation/PaperworkReductionActof1995/PRA-Listing*.

FOR FURTHER INFORMATION CONTACT: William Parham at (410) 786–4669.

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. The term ''collection of information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA (44 U.S.C. 3506(c)(2)(A)) requires federal agencies to publish a 30-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension or reinstatement of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, CMS is publishing this notice that summarizes the following proposed collection(s) of information for public comment:

1. *Type of Information Collection Request:* Reinstatement with change of a previously approved collection; *Title of Information Collection:* Medicare Enrollment Application for Institutional Providers; *Use:* The primary function of the CMS–855A Medicare enrollment application is to gather information from a certified provider or certified supplier (hereafter occasionally and collectively referenced as ''provider(s)'') that tells us who it is, whether it meets certain qualifications to be a health care provider, where it practices or renders services, the identity of its owners, and other information necessary to establish correct claims payments. This collection of information reinstatement request is associated in part with our December 28, 2020 (85 FR 84472) final rule (CMS–1734–F, RIN 0938–AU10). The collection of information changes stemming from this final rule were approved by OMB on September 28, 2021 (ICR Reference No.: 202103–0938–010).

Existing § 424.67 outlines a number of enrollment requirements for opioid treatment programs (OTPs). One requirement, addressed in § 424.67(b)(1)(i), is that OTPs must maintain and submit to CMS a list of all physicians, other eligible professionals, and pharmacists who are legally authorized to prescribe, order, or dispense controlled substances on the OTP's behalf; the list must include the person's first and last name and middle initial, social security number, National Provider Identifier, and license number (if applicable). This reinstatement request will add these data elements to the CMS–855A, which OTPs must complete if they wish to bill for OTP services via an institutional claim form (specifically, the 837I).

On November 23, 2022, CMS published in the **Federal Register** a final rule with comment period rule titled ''Medicare Program: Hospital Outpatient Prospective Payment and Ambulatory Surgical Center Payment Systems and Quality Reporting Programs; Organ Acquisition; Rural Emergency Hospitals: Payment Policies, Conditions of Participation, Provider Enrollment, Physician Self-Referral; New Service Category for Hospital Outpatient Department Prior Authorization Process; Overall Hospital Quality Star Rating; COVID–19'' (CMS–1772–FC) (87 FR 71748). This final rule with comment period outlined requirements that rural emergency hospitals (REHs)—a new Medicare provider type established pursuant to Section 125 of Division CC of the Consolidated Appropriations Act, 2021—must meet in order to bill Medicare for REH services; in accordance with new section 1861(kkk) of the Social Security Act, a facility is eligible to convert to an REH if it was a critical access hospital (CAH) or rural hospital with less than 50 beds as of December 27, 2020. CMS–1772–FC's REH requirements include those necessary to enroll as an REH. The most pertinent of these is that a CAH or rural hospital seeking REH enrollment submits a CMS–855A change of information application and need not submit a full, initial CMS–855A application. This reinstatement request will address the expected REH burden associated with completing these CMS–855A changes of information.

As part of this request, and as described in the supporting statement, we also seek approval for additional changes to the CMS–855A. These changes principally (though not exclusively) involve the collection of information related to the provider's ownership.

Form Number: CMS–855A (OMB control number: 0938–0685); *Frequency:* On occasion; *Affected Public:* Business or other for-profits, not-for-profit institutions; *Number of Respondents:* 1,340; *Total Annual Responses:* 5,881; *Total Annual Hours:* 72,147. (For policy questions regarding this collection contact Frank Whelan at 410–786–1302.)

2. *Type of Information Collection Request:* Revision of a currently approved collection; *Title of Information Collection:* Medicare Advantage, Medicare Part D, and Medicare Fee-For-Service Consumer Assessment of Healthcare Providers and Systems (CAHPS) Survey; *Use:* CMS is required to collect and report information on the quality of health care services and prescription drug coverage available to persons enrolled in a Medicare health or prescription drug plan under provisions in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA). Specifically, the MMA under Sec. 1860D–4 (Information to Facilitate Enrollment) requires CMS to conduct consumer satisfaction surveys regarding Medicare prescription drug plans and Medicare Advantage plans and report this information to Medicare beneficiaries prior to the Medicare annual enrollment period. The Medicare CAHPS survey meets the requirement of collecting and publicly reporting consumer satisfaction information. The Balanced Budget Act of 1997 also requires the collection of information about fee-for-service plans.

The primary purpose of the Medicare CAHPS surveys is to provide information to Medicare beneficiaries to help them make more informed choices among health and prescription drug plans available to them. Survey results are reported by CMS in the Medicare &

You Handbook published each fall and on the Medicare Plan Finder website. Beneficiaries can compare CAHPS scores for each health and drug plan as well as compare MA and FFS scores when making enrollment decisions. The Medicare CAHPS also provides data to help CMS and others monitor the quality and performance of Medicare health and prescription drug plans and identify areas to improve the quality of care and services provided to enrollees of these plans. CAHPS data are included in the Medicare Part C & D Star Ratings and used to calculate MA Quality Bonus Payments. *Form Number:* CMS–R–246 (OMB control number: 0938–0732); *Frequency:* Yearly; *Affected Public:* Individuals and Households; *Number of Respondents:* 794,500; *Total Annual Responses:* 794,500; *Total Annual Hours:* 192,265. (For policy questions regarding this collection contact Lauren Fuentes at 410–786–2290).

3. *Type of Information Collection Request:* New collection (Request for new OMB control number); *Title of Information Collection:* End-stage Renal Disease (ESRD) Quality Incentive Program (QIP): Study of Quality and Patient Experience; *Use:* The Centers for Medicare & Medicaid Services (CMS) oversees the quality of care provided by dialysis facilities by administering the Quality Incentive Program (QIP). As part of the evaluation of this program, CMS seeks to gain a deeper understanding of emerging trends observed across the dialysis landscape by conducting qualitative data collection and analysis. These primary qualitative data collection activities seek to answer the following research questions related to dialysis quality, access to care, health equity, and quality of life:

1. What aspects of patient dialysis care do patients report as a priority?
2. How, if at all, do dialysis facilities evaluate the quality of care they provide?
3. What strategies do providers and dialysis facilities use to improve access to care for underserved populations?
4. What do patients, providers, and stakeholder organizations believe contributes to high quality of life for patients with ESRD? Do perceptions vary by respondent type or respondent characteristics?
5. How do dialysis facilities measure patient satisfaction and quality of life?
6. How do dialysis providers and stakeholder organizations think quality of life for dialysis patients has changed over time? What was the impetus for that change?

We are requesting to collect information through in depth interviews with stakeholders of the CMS end-stage renal disease (ESRD) Quality Incentive Program (QIP). The interviews will collect data from individuals with ESRD, dialysis facility administrators, dialysis social workers, transplant center administrators, corporate representatives from dialysis organizations, and patient advocacy organizations.

This data collection seeks to answer several research questions specific to health outcomes for dialysis patients, as measured by the QIP, that are not available through current literature or secondary data collection. In preparation for this study, the evaluation team conducted a scan of peer-reviewed literature and document review of previous ESRD QIP monitoring and evaluation reports and policy documents describing CMS priorities. Based on the results from this scan, the study team identified persistent knowledge gaps and opportunities for primary data collection. Drawing on high-quality data, empirical rigor, and knowledge of nonprogrammatic factors, the evaluation will benefit CMS by providing data-driven findings and recommendations to improve patient care, reduce health disparities, and promote health equity.

This primary data collection will allow CMS to more comprehensively understand the data being compiled and analyzed quantitatively and will provide more context related to dialysis quality, quality of life of individuals with ESRD, access to dialysis care, and the patient experience, which are current CMS priorities. *Form Number:* CMS–10823 (OMB control number: 0938–NEW); *Frequency:* Once; *Affected Public:* Private Sector (Business or other for-profits, Not-for-Profit Institutions), Individuals and Households; *Number of Respondents:* 1,945; *Total Annual Responses:* 1,945; *Total Annual Hours:* 604. (For policy questions regarding this collection contact Christopher King at (410) 786–6972).

Dated: April 28, 2023.

William N. Parham, III,

Director, Paperwork Reduction Staff, Office of Strategic Operations and Regulatory Affairs.

[FR Doc. 2023–09400 Filed 5–3–23; 8:45 am]

BILLING CODE 4120–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; 2024 National Survey of Early Care and Education (OMB #: 0970–0391)

AGENCY: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

ACTION: Request for public comments.

SUMMARY: The Administration for Children and Families (ACF), U.S. Department of Health and Human Services (HHS), is proposing a data collection activity as part of the 2024 National Survey of Early Care and Education (NSECE) to be conducted October 2023 through July 2024. The objective of the 2024 NSECE is to document the nation's use and availability of early care and education (ECE) services, building on the information collected in 2012 and 2019 to describe the ECE landscape in the U.S. The 2024 NSECE will collect information on families with children under age 13 years, on ECE providers that serve families with children from birth to 13 years in the U.S., and on the workforce providing these services.

DATES: *Comments due within 30 days of publication. The Office of Management and Budget (*OMB) must make a decision about the collection of information between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication.

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.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function. You can also obtain copies of the proposed collection of information by emailing *OPREinfocollection@acf.hhs.gov.* Identify all requests by the title of the information collection.

SUPPLEMENTARY INFORMATION:

Description: The 2024 NSECE will consist of four coordinated nationally-representative surveys:

1. a survey of households with at least one resident child under the age of 13 (Household Interview),

2. a survey of individuals providing care for children under the age of 13 in a residential setting (Home-based Provider Interview) including individuals appearing on state and national lists of ECE providers (listed) and individuals not appearing on such lists (unlisted),

3. a survey of center-based ECE providers offering care for children age 5 years and under, not yet in kindergarten, in a non-residential setting (Center-based Provider Interview), and

4. a survey conducted with individuals employed in center-based ECE programs working directly with children in classrooms serving children age 5 years and under, not yet in kindergarten (Workforce Interview).

The household, home-based provider, and center-based provider surveys will require a screener to determine eligibility for the specific survey.

The 2024 NSECE data collection efforts will provide urgently needed information about the use and supply of ECE available to families across all income levels, including providers serving low-income families of various racial, ethnic, language, and cultural backgrounds, in diverse geographic areas. The household data will include characteristics of households with children under age 13, such as parental employment status and schedules, preferences and choices of non-parental care, and other key factors that affect their need for and access to ECE. The provider data will include home-based or center-based ECE providers (*e.g.,* private, non-profit, Head Start-funded, state or local Pre-K, or based in public schools) that do or do not participate in the child care subsidy program, and are or are not regulated, registered, or otherwise appear in state or national lists. Accurate data on families with young children and the availability and characteristics of ECE providers are essential to assess the current and changing landscape of ECE since the 2019 NSECE data collection, and to provide insights to advance policy and initiatives in the ECE field. The two previous rounds of NSECE, collected in 2012 and 2019, produced critical data about providers of ECE services, the ECE workforce, and families' needs and use of child care throughout the U.S. that remain unmatched by other data sources available.

Respondents: Households with resident children under age 13, home-based ECE providers serving children under age 13 (listed and unlisted), center-based ECE providers serving children age 5 and under (not yet in kindergarten), and classroom-assigned instructional staff (workforce) members working with children age 5 and under (not yet in kindergarten) in center-based ECE programs.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents (total over request period)	Number of responses per respondent (total over request period)	Avg. burden per response (in hours)	Total/annual burden (in hours)
Household Screener (screening only)	62,758	1	.1	6,276
Household Questionnaire (no screener)	10,000	1	1	10,000
Home-based Provider Screener (screening only, listed home-based providers)	2,064	1	.03	62
Home-based Provider Questionnaire including screener (listed home-based providers)	4,360	1	.67	2,921
Home-based Provider Questionnaire, including screener (unlisted home-based providers)	1,158	1	.33	382
Center-based Provider Screener (screening only)	10,050	1	.1	1,005
Center-based Provider Questionnaire, including screener	8,392	1	.75	6,294
Workforce (Classroom Staff) Questionnaire	7,418	1	.33	2,448

Estimated Total Annual Burden Hours: 29,388.

Authority: Child Care and Development Block Grant Act of 1990 as amended by the CCDBG Act of 2014 (Pub. L. 113–186). Social Security Act 418 as extended by the Continuing Appropriations Act of 2017 and the TANF Extension Act of 2019. Section 3507 of the Paperwork Reduction Act of 1995, 44 U.S.C. chapter 35.

Mary B. Jones,

ACF/OPRE Certifying Officer.

[FR Doc. 2023–09455 Filed 5–3–23; 8:45 am]

BILLING CODE 4184–23–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2023–N–1585]

Identification, Assessment, and Control of Nitrosamine Drug Substance-Related Impurities in Human Drug Products; Establishment of a Public Docket; Request for Comments

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice; establishment of a public docket; request for comments.

SUMMARY: The Food and Drug Administration (FDA, Agency, or we) is announcing the establishment of a docket to solicit public comments on the identification, assessment, and control of N-nitrosamine (nitrosamine) drug substance-related impurities (NDSRIs) that may be considered by the Agency in its regulation of these types of impurities in drug products. This notice identifies scientific and regulatory considerations regarding the identification, assessment, and control of NDSRIs, including areas that may benefit from collaborative efforts, and requests comments on these topics. This notice is not intended to communicate FDA's regulatory expectations on these issues but is instead intended to seek input from the public to inform scientific and/or regulatory approaches as appropriate.

DATES: Either electronic or written comments must be submitted by July 3, 2023.

ADDRESSES: You may submit comments as follows. Please note that late,

untimely filed comments will not be considered. The *https://www.regulations.gov* electronic filing system will accept comments until 11:59 p.m. Eastern Time at the end of July 3, 2023. Comments received by mail/hand delivery/courier (for written/paper submissions) will be considered timely if they are received on or before that date.

Electronic Submissions

Submit electronic comments in the following way:

• *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to *https://www.regulations.gov* will be posted to the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on *https://www.regulations.gov.*

• If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see ''Written/Paper Submissions'' and ''Instructions'').

Written/Paper Submissions

Submit written/paper submissions as follows:

• *Mail/Hand Delivery/Courier (for written/paper submissions):* Dockets Management Staff (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

• For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked, and identified, as confidential, if submitted as detailed in ''Instructions.''

Instructions: All submissions received must include the Docket No. FDA–FDA–2023–N–1585 for ''Identification, Assessment, and Control of Nitrosamine Drug Substance-Related Impurities in Human Drug Products; Establishment of a Public Docket; Request for Comments.'' Received comments, those filed in a timely manner (see **ADDRESSES**), will be placed in the docket and, except for those submitted as ''Confidential Submissions,'' publicly viewable at *https://www.regulations.gov* or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday, 240–402–7500.

• Confidential Submissions—To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states ''THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.'' The Agency will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on *https://www.regulations.gov.* Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as ''confidential.'' Any information marked as ''confidential'' will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA's posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: *https://www.govinfo.gov/content/pkg/FR-2015-09-18/pdf/2015-23389.pdf.*

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to *https://www.regulations.gov* and insert the docket number, found in brackets in the heading of this document, into the ''Search'' box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852, 240–402–7500.

FOR FURTHER INFORMATION CONTACT:

Jason Bunting, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, Rm. 6366, Silver Spring, MD 20993–0002, 301–796–1292, *Jason.bunting@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

A. Nitrosamines, Including NDSRIs, in Human Drug Products

FDA has been investigating the presence of nitrosamine impurities in certain drug products since June 2018. Nitrosamines are common in water and foods, including cured and grilled meats, dairy products, and vegetables. Nitrosamines may increase the risk of cancer if people are exposed to them above acceptable levels. The acceptable intake (AI) limit is a level that approximates an increased cancer risk of one additional case in 100,000 people based on a conservative assumption of daily exposure to the impurity or impurities over a lifetime (70 years) (See FDA guidance for industry ''Control of Nitrosamine Impurities in Human Drug Drugs'' (Nitrosamine Guidance) at 10, available at *https://www.fda.gov/media/141720/download* (Ref. 3).

When FDA was informed of the presence of an impurity identified as N-nitrosodimethylamine (NDMA) in valsartan, an angiotensin II receptor blocker (ARB), it began an investigation in which it determined that numerous lots of valsartan and a few other ARB drug products from different manufacturers contained unacceptable levels of nitrosamines. The drug product manufacturers voluntarily recalled the affected batches of these drug products, which led to a drug shortage in some of the affected products. In addition, FDA evaluated processes used in synthesis of the active pharmaceutical ingredient (API) and learned that common synthetic pathways could also introduce other types of nitrosamine impurities besides NDMA. FDA has continued to learn of the existence of nitrosamine impurities such as NDMA in drug products in several drug classes (see Ref. 3 at 2–3).

FDA originally published the Nitrosamine Guidance on September 3, 2020 (85 FR 55017), and updated the guidance on February 24, 2021 (Ref. 3). The guidance provides recommendations for industry regarding nitrosamines, and NDSRIs are a subcategory of these impurities that share structural similarity with the active pharmaceutical ingredient in drug products. In the Nitrosamine Guidance, FDA recommends manufacturers of APIs and drug products should take steps to detect and prevent unacceptable levels of nitrosamine impurities in drug products, or avoid their presence when feasible.[1] Specifically, FDA

[1] The Nitrosamine Guidance notes that new drug application (NDA) and abbreviated new drug application (ANDA) holders or applicants, drug master file holders, and owners of marketed products that are not the subject of approved NDAs or ANDAs (such as compounded products or products marketed under an over-the-counter drug monograph) who are not also the manufacturer of the drug products and APIs should work with their contract manufacturers to take the steps recommended in the Nitrosamine Guidance. This applies to drug products currently available on the

recommends a three-step process that manufacturers should take to mitigate nitrosamine impurities in their products: (1) conduct risk assessments for nitrosamines in their products; (2) conduct confirmatory testing if risks are identified; and (3) report changes implemented to prevent or reduce the presence of nitrosamine impurities in drug products in approved and pending new drug applications (NDAs) and abbreviated new drug applications (ANDAs). The Nitrosamine Guidance describes some conditions that may introduce or create nitrosamine impurities (a nitrosating reaction between secondary, tertiary, or quaternary amines and nitrous acid (nitrite salts under acidic conditions)) and provides FDA-recommended AI limits for six nitrosamine impurities that could be present in drug products (see Ref. 3 at 10).

More recently, and often in response to the risk assessment recommended in the Nitrosamine Guidance, FDA has received an increasing number of reports of certain types of nitrosamine impurities that have formed in drug products across multiple drug classes. These NDSRIs are a class of nitrosamines sharing structural similarity to the API, and thus, differ in certain respects from small molecule nitrosamine impurities (*i.e.,* nitrosamine impurities that do not share structural similarity to the API, and are therefore, not considered NDSRIs) identified in the Nitrosamine Guidance (see Ref. 3 at 10). NDSRIs can be generated during manufacturing, or during the shelf-life storage period of the drug product. They can also be generated during the synthesis of the drug substance. In some cases, the root cause of NDSRI formation has been attributed to nitrite impurities present in excipients at parts-per-million amounts. Nitrite impurities have been observed in a range of commonly used excipients (as well as water) and may lead to the formation of NDSRIs in certain drug products. In general, there is a risk of generating nitrosamine impurities when nitrites are in the presence of secondary, tertiary, or quaternary amines. Secondary or tertiary amines are known to be part of the chemical structure of several hundred APIs. Accordingly, depending on the formulation and manufacturing process for the drug product, as well as ongoing oversight of the quality of materials produced by suppliers, there may be a risk of nitrosamine formation in a substantial number of drug products.

In November 2021, FDA alerted the public regarding the presence of NDSRIs and indicated that manufacturers could ascertain the presence of NDSRIs using the same three-step process identified in the Nitrosamine Guidance (Ref. 4). As discussed further below, FDA also conveyed possible mitigation strategies, and encouraged applicants to develop control strategies or design approaches to reduce NDSRIs to acceptable levels or eliminate them (where feasible).

NDSRIs present unique scientific and regulatory challenges for FDA because each NDSRI is unique to the API, and there is limited compound-specific data that is available to inform safety assessments. Additionally, design of validated test methods for identification of NDSRIs and modification of existing test methods for assessment of their mutagenic potential may raise novel scientific considerations.

B. Safety Assessments of the Potential for Mutagenic and Carcinogenic Risk

In the Nitrosamine Guidance, FDA recognizes that nitrosamine compounds are potent genotoxic agents in several animal species, and some have been classified as probable or possible human carcinogens by the World Health Organization's International Agency for Research on Cancer (see Ref. 3 at 5). The framework for identifying, categorizing, qualifying and controlling DNA reactive (mutagenic) impurities to limit potential carcinogenic risk is provided in FDA and International Council for Harmonisation guidance for industry entitled ''M7(R1) Assessment and Control of DNA Reactive (Mutagenic) Impurities in Pharmaceuticals To Limit Potential Carcinogenic Risk'' (ICH M7(R1) Guidance), available at *https://www.fda.gov/media/85885/download* (Ref. 5). (The ICH M7(R1) Guidance was prepared under the auspices of the ICH). Nitrosamines as a structural group are referred to as ''cohort of concern'' compounds in the ICH M7(R1) Guidance because of their classification as high-potency mutagenic carcinogens. It is currently unknown if all or some NDSRIs are associated with this classification.

The ICH M7(R1) Guidance provides guidance to derive AI limits for some chemicals that are considered mutagens and carcinogens and are also commonly used in the synthesis of pharmaceuticals or are useful examples to illustrate the principles for deriving compound-specific intakes otherwise described in the ICH M7(R1) Guidance (see the **Federal Register** notice issued March 14, 2018 (83 FR 11210). Specifically, the ICH M7(R1) Guidance recommends applicants use a hazard assessment, which involves an initial analysis of actual and potential impurities by conducting database and literature searches for carcinogenicity and bacterial mutagenicity data, to classify impurities into one of five classes and proposes action for control based on the resulting class (with Class 1 being known mutagenic carcinogens and Class 5 being impurities with no structural alerts,[2] or alerting structure with sufficient data to demonstrate lack of mutagenicity or carcinogenicity) (see Ref. 5 at 10). If data are not available for such a classification, a computational toxicology assessment should be conducted using two (quantitative) structure-activity relationship ((Q)SAR) methodologies that can predict the outcome of a bacterial mutagenicity test (see Ref. 5 at 9–10). In the ICH M7(R1) Guidance, FDA recommends that impurities for each class be controlled at specified limits; for example, it recommends Class 1 impurities be controlled at or below compound-specific acceptable limits, and Class 5 impurities be controlled as non-mutagenic impurities (see Ref. 5 at 10).

1. Assessment of Potential Mutagenicity and Carcinogenicity

FDA typically requests that applicants assess the potential for an impurity to be mutagenic by conducting a standard in vitro bacterial reverse mutation test (Ames test). If this in vitro mutagenicity testing is negative for a nitrosamine impurity, FDA has requested further testing because standard methods used for the Ames test may not be adequate to characterize the mutagenic potential of nitrosamines, in some cases producing negative results with known mutagenic nitrosamines. Information in published scientific literature suggests that some Ames tests (*e.g.,* those conducted with rat S9) may not be sensitive enough to assess the mutagenicity of nitrosamine compounds because of species-specific differences in metabolic activation of potential mutagens. Additionally, there is limited experience on the sensitivity of these tests for NDSRIs, which are more complex structures than the more commonly identified nitrosamines in the Nitrosamine Guidance. Therefore, FDA's National Center for Toxicological Research has been testing different conditions to develop an enhanced

U.S. market as well as those with pending applications. See Ref. 3 at 1, footnote 3. Holders of biologics license applications for biological products that contain chemically synthesized fragments or biologic-led combination products that contain a drug constituent part also may be affected.

[2] The ICH M7(R1) Guidance defines a structural alert in the context of the guidance as ''a chemical grouping or molecular (sub) structure which is associated with mutagenicity'' (Ref. 5 at 129).

Ames test that is intended to provide a more reliable assessment of potential mutagenicity in small molecule nitrosamine impurities and NDSRIs.

In some circumstances in which the results of an enhanced Ames test are negative, the mutagenic potential of the impurity was further assessed in an in vivo transgenic gene mutation test to confirm the in vitro findings. If further in vivo testing is to be conducted, the selection of the in vivo mutagenicity tests should be scientifically justified based on knowledge of the mechanism of action of the impurity and expected target tissue exposure (see Ref. 5 at 11 and at (Note 3) 21–22). To avoid potentially duplicative nonclinical in vitro or in vivo testing of NDSRIs by manufacturers of drug products containing the drug substance, FDA is interested in exploring the feasibility of collaborative efforts among applicants and manufacturers of affected drug products.

2. Computational Toxicology

In general, (Q)SAR models are accepted as a scientific tool for predicting and classifying the biological activities of untested chemicals. A computational toxicology assessment using (Q)SAR methodologies can predict, with acceptable confidence, the outcome of an Ames test by using two complementary, validated modeling methodologies (statistical-based and expert rule-based) and can be used to classify an impurity as mutagenic or non-mutagenic (see Ref. 5 at 10). The methodology uses statistical and/or manual approaches to correlate and rationalize variations in the biological activity of a series of chemicals with variations in their molecular structures, which are often represented by a set of quantities commonly known as ''structural descriptors.'' Because (Q)SAR models can generate a prediction of a chemical's biological activity from structural descriptors more rapidly than in vitro or in vivo testing can be conducted, they provide a means to efficiently assess nitrosamine toxicity when experimental data are unavailable. However, the predictive performance of (Q)SAR models depends on many factors, particularly on the quality of biological training data, descriptor selection, and modeling algorithm. Therefore, FDA has been working with model developers and stakeholders to advance predictive toxicology, with a focus on the use of (Q)SAR methodologies in assessing potential mutagenicity and carcinogenicity of NDSRIs.

3. Determining AI Limits for NDSRIs

A recommended AI limit is based on a safety assessment that includes evaluation of the mutagenic and carcinogenic potential of the impurity and represents the level at or below which FDA has determined that the impurity or impurities would not pose a safety concern for patients taking the drug product. The AI limit is a level that approximates an increased cancer risk of 1:100,000 based on a conservative assumption of daily exposure to the impurity or impurities over a lifetime (70 years) (see Ref. 3 at 10 and Appendix B ''FDA Determination of Acceptable Intake Limits''). The AI limit is generally described in nanograms per day, and each applicant establishes specifications to control for the level of impurity or impurities in their drug products (in parts per million) based on the maximum daily dose of the drug product under the labeled conditions of use. Once a recommended AI limit has been established, applicants and manufacturers would generally be expected to control impurities within the recommended AI limit (see Ref. 3 at 14, 15). Applicants or manufacturers should contact FDA regarding drug products with unacceptable levels of nitrosamine impurities that are already in distribution (see Ref. 3 at 14, 15). Additionally, applicants and manufacturers may need to modify the manufacturing processes or reformulate their drug products to control impurities within the recommended AI limit [3] or submit additional testing to FDA that would demonstrate the applicant's proposed limit is safe.[4]

Calculating a recommended AI limit for NDSRIs is often more challenging than calculating recommended AI limits for small molecule nitrosamines, primarily because NDSRIs are unique to each API and there is usually limited or no existing safety data (*e.g.,* rodent carcinogenicity data) on NDSRIs (see also Ref. 5 at 12 and note 4 on calculating a compound-specific AI limit). FDA has published recommended AI limits for a limited number of NDSRIs, but unlike more commonly known nitrosamines (such as those identified in the Nitrosamine Guidance), a recommended AI limit has not yet been determined for most NDSRIs.

If mutagenic potential is identified through toxicological testing or computational toxicology models, FDA and applicants have used (Q)SAR methods to identify and select a data-rich surrogate that is similar in structure and reactivity to the data-poor NDSRI to generate an estimate of carcinogenic potency from which an AI limit can be determined. In this scenario, surrogates are compounds containing an N-nitroso structural alert in the same chemical environment as an NDSRI and for which robust carcinogenicity data are available (see Ref. 5 at 11–12). The rationale for the choice of surrogate (similar in structure and reactivity) is significant because test data from the identified surrogate is then used to generate an estimate, either quantitatively or qualitatively, for the data-poor compound (commonly referred to as a ''read-across analysis'').

The nitrosamine structural alert environment is an important factor when selecting appropriate reference compounds for a read-across analysis and may include consideration of the degree of substitution, steric bulk, electronic influences, potential for metabolic activation, stability/reactivity of the resulting metabolites, and overall molecular weight. Additionally, the quality of carcinogenicity studies in the published scientific literature can be quite variable; however, use of less robust data can sometimes be considered acceptable when no more complete data exist, given the highly conservative nature of the risk assessment (see Ref. 5 at 36).

C. FDA's Ongoing Work on Nitrosamine Risk Assessment and Mitigation

Since the issuance of the Nitrosamine Guidance, FDA has continued to work to better understand the root causes of nitrosamines, develop mitigation strategies that can eliminate or minimize the presence of nitrosamines in drug products, and improve approaches to risk assessment (mutagenicity and carcinogenicity) of NDSRIs in drug substances and drug products that can inform recommended AI limits.

As FDA learned more about NDSRI formation and received increasing numbers of reports from industry on the presence of NDSRIs, the Agency identified on its web page two examples of mitigation strategies related to formulation design to assist

[3] For recommendations to API manufacturers and drug manufacturers see Ref. 3 at 11–15.

[4] See, *e.g.,* generally Ref. 5, which provides a framework for the identification, categorization, qualification, and control of mutagenic impurities to limit potential carcinogenic risk, at 4 and ''Table 1: Impurities Classification With Respect to Mutagenic and Carcinogenic Potential and Resulting Control Actions,'' at 10. The guidance further explains that if an impurity has a positive bacterial mutagenicity result and cannot be controlled at an appropriate acceptable limit, then it may be recommended that the impurity be tested in an in vivo gene mutation assay, which may support recommending a compound-specific impurity limit (see Ref. 5 at 11).

manufacturers in reducing the levels of NDSRIs in drug products. One mitigation strategy was derived from published literature reports that demonstrated that commonly used antioxidants, such as ascorbic acid (vitamin C) or alpha-tocopherol (vitamin E), inhibit the formation of nitrosamines in vivo, based on data from human gastric fluid in vitro studies (see Ref. 4). FDA advised that recent work preliminarily demonstrated that the addition of these antioxidants to formulations may significantly inhibit the formation of NDSRIs in drug products. FDA also presented a second possible mitigation strategy related to formulation design based on the fact that the formation of nitrosamines typically occurs under acidic conditions, whereas, in a neutral or basic environment, the kinetics of these reactions are significantly reduced (Ref. 4). FDA has encouraged manufacturers to consider these as well as other innovative strategies to reduce the formation of NDSRIs to acceptable levels in drug products.

D. Regulatory Challenges

The identification of a new impurity, such as an NDSRI, may have implications for a cohort of pending or approved NDAs (including applications submitted pursuant to section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 355(b)(2))) and ANDAs and also creates unique challenges from a regulatory perspective. For example, a generic drug applicant typically may qualify the level of an impurity that does not have a limit in an applicable U.S. Pharmacopeia monograph or that does not otherwise have a recommended AI limit (*e.g.,* as described in applicable guidance) by comparing its proposed product to the observed amounts of the impurity in the previously approved drug product (the reference listed drug) on which it relies for approval (see Refs. 1 and 2). This approach reflects that identification and evaluation of certain impurities to establish the biological safety of the impurity at the level(s) present in the API or drug product typically occurs before approval of the NDA for the reference listed drug, and subsequently, ANDA applicants can conduct comparative testing of their products and the reference listed drug to qualify impurities. However, challenges arise when each applicant in a cohort of pending or approved NDAs (including section 505(b)(2) applications) and ANDAs concurrently conducts risk assessments for the presence of an NDSRI in their drug products and, if present, develops data to support an AI limit and specifications for controlling the impurity in their drug products.

Moreover, information on impurities in drug products that may reveal an aspect of an applicant's manufacturing method or process generally has been protected from public disclosure, unless such information has been previously disclosed by the applicant or is otherwise publicly available. Thus, FDA may be limited in the impurity information that it can disclose to facilitate efficient evaluation of other products and to inform applicants of actions they can take to mitigate nitrosamine risk. In addition, there are considerations that may constrain FDA's ability to disclose certain information provided by an applicant in FDA's evaluation of other applicants' submissions to FDA, which can lead to potentially duplicative nonclinical tests (which may include animal testing) to characterize the risk and inform a recommended AI limit. This can be a significant concern when a newly identified NDSRI may have implications for a cohort of pending or approved marketing applications. For example, there are circumstances in which potential constraints regarding disclosure could hamper FDA's ability to quickly and publicly identify a compound-specific recommended AI limit for an NDSRI that may be applicable to all drug products that contain the API. Potential constraints related to disclosure of certain information regarding impurities could also lead to delays in providing applicants, including follow-on and generic drug products, with information to develop drug products with acceptable impurity profiles. Additionally, uncertainty about the presence and/or acceptability of the level of an impurity raises additional regulatory challenges and could lead to some applicants conducting unnecessary studies or even discontinuing drug products from the market, potentially resulting in drug shortages. These difficulties can impact patient access to medications, including drugs that are considered medically necessary.

To avoid these potential issues, at times, FDA generates and makes publicly available information or research to support the development of recommended AI limits by conducting additional studies, developing enhanced Ames testing, or using (Q)SAR methodology to identify appropriate surrogates from which read-across can be used to estimate carcinogenic potency. Applicants can use this FDA-generated information to set individual drug product specifications. The absence of publicly available data to support a recommended AI limit for an NDSRI can result in potentially duplicative studies to support a recommended AI limit. Moreover, if in vivo animal studies are necessary to assess the risk of a particular NDSRI, such potentially duplicative testing may not align with FDA's policy to replace, reduce, and refine the use of animals for safety testing (the 3R principles), where possible (see, *e.g.,* Ref. 6 at 1).

E. Collaborative Efforts To Develop NDSRI Data

FDA has encouraged collaborative efforts by applicants and other stakeholders, together with the Agency as appropriate, to help address the challenges presented by NDSRIs. FDA also has collaborated with international regulatory agencies through the Nitrosamines International Strategic Group and the Nitrosamines International Technical Working Group, which were formed to share scientific knowledge and current thinking on technical safety and quality topics related to nitrosamines and to promote technical convergence among member jurisdictions, where possible. In other areas, FDA is collaborating on multi-laboratory projects being organized by the Health and Environmental Sciences Institute's Genetic Toxicology Technical Committee that include industry stakeholders and regulatory agencies such as Health Canada and European Medicines Agency. Additionally, FDA has been actively engaged with model developers and stakeholders to advance predictive toxicology with a focus on the use of (Q)SAR methodologies in assessing potential mutagenicity and carcinogenicity of NDSRIs.

Development of laboratory test methods to identify NDSRIs is an area that could benefit from collaborative efforts. In the Nitrosamine Guidance, FDA encourages manufacturers or laboratories to make validated test methods publicly available (*e.g.,* by posting on the method developer's website) to facilitate faster testing of other similar drug products. FDA also accepts requests to post privately developed methods on FDA's website if FDA's review of the method protocol finds it scientifically sound and if the method owner provides written authorization for posting by FDA (see Ref. 3 at 11, footnote 37). As another example, a positive bacterial mutagenicity result may warrant an additional in vivo gene mutation assay, typically a transgenic mutation assay, to understand the relevance of the bacterial mutagenicity test under in vivo conditions (see Ref. 5 at 11 and (Note 3)

(identifying the transgenic mutation assay as appropriate for followup for any positive bacterial mutagenicity test as opposed to other tests, which are recommended under more limited circumstances). When such in vivo testing is warranted, industry collaboration on the testing to develop robust data and share results among themselves could enhance scientific analyses and could facilitate regulatory decision-making. Similarly, we have encouraged applicants to publish scientific research and test results to further scientific knowledge on NDSRIs and facilitate regulatory decision-making, as appropriate.

II. Issues for Consideration and Request for Comments

FDA is requesting comments from the public regarding the identification, assessment, and control of NDSRIs in drug product development and regulatory review to provide interested parties an opportunity to comment on scientific and regulatory considerations, including areas that may benefit from collaborative efforts. FDA is also interested in any challenges preventing industry from identifying, assessing, and controlling NDSRIs that may assist FDA in its analysis.

The questions posed below are not meant to be exhaustive. FDA is interested in other pertinent information that stakeholders would like to provide on issues and challenges related to addressing NDSRIs. FDA is particularly interested in comments on the following topics:

A. General Questions

1. What additional topics related to the evaluation of nitrosamines should be a priority for the Agency to address through guidance documents?

2. What factors should FDA consider in prioritizing its evaluation of NDSRIs on a compound-specific basis?

3. What additional mitigation strategies should be considered for reducing NDSRI formation or eliminating these impurities (where feasible)?

B. NDSRI Risk Assessment

1. What scientific and technical factors should FDA consider in developing best practices for conducting testing for NDSRIs (*e.g.,* Ames test, enhanced Ames test, followup in vitro mutagenicity, in vivo transgenic gene mutation test) in support of establishing AI limits?

a. Are there other tests recommended for assessing mutagenic potential of NDSRIs, and how supportable are these methods?

b. Would ''short-term'' carcinogenicity testing (*e.g.,* 6-month transgenic mouse model) be informative to evaluate the risk associated with NDSRIs?

c. If so, what are the advantages and disadvantages to such testing?

d. Are there other types of studies that may further inform FDA about the risk associated with NDSRI (*e.g.,* in vitro/in vivo metabolism, DNA biomarkers, identification of reactive intermediates)?

2. FDA recommended in the Nitrosamine Guidance that confirmatory testing of drug products and submission of required changes in drug applications be concluded on or before October 1, 2023 (see Ref. 3 at 17). Would an extension of the recommended timeline for submission of changes in drug applications as described in the guidance to June 1, 2024, allow for additional assessment of NDSRIs and enable collaborative efforts among affected applicants? How can FDA further support manufacturers' efforts toward completion of confirmatory testing?

C. Collaborative Efforts To Develop NDSRI Data and Establish and Implement Recommended AI Limits

1. How can FDA facilitate collaborative efforts to generate reliable compound-specific data on NDSRIs and reduce the need for additional and potentially duplicative testing?

2. Are there obstacles that industry has encountered when engaging in collaborative efforts that could allow companies to share data to assess the safety of NDSRIs, particularly with the intent of reducing redundant testing and integrating the 3R principles? Such examples of collaboration may include enhancing (Q)SAR methods and models, conducting in vitro mutagenicity testing and/or in vivo transgenic gene mutation tests. If there are such obstacles, are there ways that FDA could facilitate collaboration?

D. Establishing and Implementing Recommended AI Limits and Access to Medications

1. In implementing recommendations for controlling nitrosamines, including NDSRIs, have manufacturers or suppliers experienced difficulties with meeting recommended AI limits that has led to discontinuation of manufacturing or distribution?

III. References

The following references are on display at the Dockets Management Staff (see **ADDRESSES**) and are available for viewing by interested persons between 9 a.m. and 4 p.m., Monday through Friday; they are also available electronically at *https://www.regulations.gov.* FDA has verified the website addresses, as of the date this document publishes in the **Federal Register**, but websites are subject to change over time.

1. Food and Drug Administration (FDA) guidance for industry ''ANDAs: Impurities in Drug Substances,'' June 2009, available at *https://www.regulations.gov/document/FDA-1998-D-0021-0008.*

2. FDA guidance for industry ''ANDAs: Impurities in Drug Products,'' November 2010, available at *https://www.fda.gov/media/71351/download.*

3. FDA guidance for industry ''Control of Nitrosamine Impurities in Human Drugs,'' February 2021, available at *https://www.fda.gov/media/141720/download.*

4. FDA, ''Updates on Possible Mitigation Strategies To Reduce the Risk of Nitrosamine Drug Substance-Related Impurities in Drug Products,'' available at *https://www.fda.gov/drugs/drug-safety-and-availability/updates-possible-mitigation-strategies-reduce-risk-nitrosamine-drug-substance-related-impurities.* Last accessed April 14, 2023.

5. FDA and International Council for Harmonisation guidance for industry ''M7(R1) Assessment and Control of DNA Reactive (Mutagenic) Impurities in Pharmaceuticals To Limit Potential Carcinogenic Risk,'' March 2018, available at *https://www.fda.gov/media/85885/download.*

6. FDA and International Council for Harmonisation guidance for industry, ''M3(R2) Nonclinical Safety Studies for the Conduct of Human Clinical Trials and Marketing Authorization for Pharmaceuticals'' January 2010, available at *https://www.fda.gov/media/71542/download.*

Dated: May 1, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–09526 Filed 5–3–23; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket Nos. FDA–2022–N–1894; FDA–2018–N–3303; FDA–2022–N–0576; FDA–2022–N–1794; FDA–2011–N–0902; FDA–2009–N–0545; FDA–2016–N–2474; FDA–2010–D–0350; FDA–2012–D–0530; FDA–2016–N–2683; FDA–2013–N–0403; FDA–2013–N–0134; FDA–2022–N–2440; FDA–2013–N–0879; and FDA–2014–N–1048]

Agency Information Collection Activities; Announcement of Office of Management and Budget Approvals

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is publishing a

list of information collections that have been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995.

FOR FURTHER INFORMATION CONTACT: JonnaLynn Capezzuto, Office of Operations, Food and Drug Administration, Three White Flint North, 10A–12M, 11601 Landsdown St., North Bethesda, MD 20852, 301–796–3794, *PRAStaff@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION: The following is a list of FDA information collections recently approved by OMB under section 3507 of the Paperwork Reduction Act of 1995 (44 U.S.C. 3507). The OMB control number and expiration date of OMB approval for each information collection are shown in table 1. Copies of the supporting statements for the information collections are available on the internet at *https://www.reginfo.gov/public/do/PRAMain.* 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.

TABLE 1—LIST OF INFORMATION COLLECTIONS APPROVED BY OMB

Title of collection	OMB control No.	Date approval expires
Yale-Mayo Clinic Centers of Excellence in Regulatory Science and Innovation B12 Pediatric Device Survey	0910–0912	3/31/2024
Electronic Products Requirements	0910–0025	2/28/2026
Investigational Device Exemptions	0910–0078	2/28/2026
General Drug Labeling Provisions and OTC Monograph Drug User Fee Submissions	0910–0340	2/28/2026
Prescription Drug Product Labeling; Medication Guide Requirements	0910–0393	2/28/2026
Reporting of Biological Product Deviations and Human Cells, Tissues, and Cellular and Tissue-Based Product Deviations in Manufacturing	0910–0458	2/28/2026
Designation of New Animal Drugs for Minor Use or Minor Species	0910–0605	2/28/2026
Tobacco Retailer Training Programs	0910–0745	2/28/2026
Q-Submission and Early Payor Feedback Request Programs for Medical Devices	0910–0756	2/28/2026
Data To Support Social and Behavioral Research as Used by the Food and Drug Administration	0910–0847	2/28/2026
Protection of Human Subjects and Institutional Review Boards	0910–0130	3/31/2026
Mammography Standards Quality Act Requirements	0910–0309	3/31/2026
Biologics License Applications; Procedures & Requirements	0910–0338	3/31/2026
Procedures for the Safe Processing and Importing of Fish and Fishery Products	0910–0354	3/31/2026
Medical Device Labeling Regulations; Unique Device Identification	0910–0485	3/31/2026

Dated: April 28, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–09401 Filed 5–3–23; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2023–N–1553]

Vaccines and Related Biological Products Advisory Committee; Notice of Meeting; Establishment of a Public Docket; Request for Comments

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice; establishment of a public docket; request for comments.

SUMMARY: The Food and Drug Administration (FDA) announces a forthcoming public advisory committee meeting of the Vaccines and Related Biological Products Advisory Committee (VRBPAC). The general function of the committee is to provide advice and recommendations to FDA on regulatory issues. On June 15, 2023, the committee will meet in open session to discuss and make recommendations on the selection of strain(s) to be included in the periodic updated COVID–19 vaccines for the 2023–2024 vaccination campaign. The meeting will be open to the public. FDA is establishing a docket for public comment on this document.

DATES: The meeting will be held virtually on June 15, 2023, from 8:30 a.m. to 5 p.m. Eastern Time.

ADDRESSES: Please note that all meeting participants will be joining this advisory committee meeting via an online teleconferencing platform. The online web conference meeting will be available at the following link on the day of the meeting: *https://youtube.com/live/gBOyPREXGh8.*

FDA is establishing a docket for public comment on this meeting. The docket number is FDA–2023–N–1553. The docket will close on June 14, 2023. Either electronic or written comments on this public meeting must be submitted by June 14, 2023. Please note that late, untimely filed comments will not be considered. The *https://www.regulations.gov* electronic filing system will accept comments until 11:59 p.m. Eastern Time at the end of June 14, 2023. Comments received by mail/hand delivery/courier (for written/paper submissions) will be considered timely if they are received on or before that date.

Comments received on or before June 7, 2023, will be provided to the committee. Comments received after June 7, 2023, and by June 14, 2023, will be taken into consideration by FDA. In the event that the meeting is canceled, FDA will continue to evaluate any relevant applications or information, and consider any comments submitted to the docket, as appropriate. You may submit comments as follows:

Electronic Submissions

Submit electronic comments in the following way:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to *https://www.regulations.gov* will be posted to the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on *https://www.regulations.gov.*
- If you want to submit a comment with confidential information that you do not wish to be made available to the

public, submit the comment as a written/paper submission and in the manner detailed (see ''Written/Paper Submissions'' and ''Instructions'').

Written/Paper Submissions

Submit written/paper submissions as follows:

• *Mail/Hand Delivery/Courier (for written/paper submissions):* Dockets Management Staff (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

• For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked and identified, as confidential, if submitted as detailed in ''Instructions.''

Instructions: All submissions received must include the Docket No. FDA–2023–N–1553 for ''Vaccines and Related Biological Products Advisory Committee (VRBPAC); Notice of Meeting; Establishment of a Public Docket; Request for Comments.'' Received comments, those filed in a timely manner (see **ADDRESSES**), will be placed in the docket and, except for those submitted as ''Confidential Submissions,'' publicly viewable at *https://www.regulations.gov* or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday, 240–402–7500.

• Confidential Submissions—To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states ''THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.'' FDA will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on *https://www.regulations.gov.* Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify the information as ''confidential.'' Any information marked as ''confidential'' will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA's posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: *https://www.govinfo.gov/content/pkg/FR-2015-09-18/pdf/2015-23389.pdf.*

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to *https://www.regulations.gov* and insert the docket number, found in brackets in the heading of this document, into the ''Search'' box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852, 240–402–7500.

FOR FURTHER INFORMATION CONTACT: Sussan Paydar or Prabhakara Atreya, Center for Biologics Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 71, Silver Spring, MD 20993–0002, 202–657–8533, *CBERVRBPAC@fda.hhs.gov;* or FDA Advisory Committee Information Line, 1–800–741–8138 (301–443–0572 in the Washington, DC area). A notice in the **Federal Register** about last minute modifications that impact a previously announced advisory committee meeting cannot always be published quickly enough to provide timely notice. Therefore, you should always check FDA's website at *https://www.fda.gov/AdvisoryCommittees/default.htm* and scroll down to the appropriate advisory committee meeting link, or call the advisory committee information line to learn about possible modifications before coming to the meeting.

SUPPLEMENTARY INFORMATION:

Agenda: The meeting presentations will be heard, viewed, captioned, and recorded through an online teleconferencing platform. On June 15, 2023, the committee will meet in open session to discuss and make recommendations on the selection of strain(s) to be included in the periodic updated COVID–19 vaccines for the 2023–2024 vaccination campaign. This discussion will include consideration of the vaccine composition for fall to winter, 2023–2024.

FDA intends to make background material available to the public no later than 2 business days before the meeting. If FDA is unable to post the background material on its website prior to the meeting, the background material will be made publicly available at the time of the advisory committee meeting, and the background material will be posted on FDA's website after the meeting. Background material is available at *https://www.fda.gov/AdvisoryCommittees/Calendar/default.htm.* Scroll down to the appropriate advisory committee meeting link. The meeting will include slide presentations with audio components to allow the presentation of materials in a manner that most closely resembles an in-person advisory committee meeting.

Procedure: Interested persons may present data, information, or views, orally or in writing, on issues pending before the committee. All electronic and written submissions submitted to the Dockets (see **ADDRESSES**) on or before June 7, 2023, will be provided to the committee. Comments received after June 7, 2023, and by June 14, 2023, will be taken into consideration by FDA. Oral presentations from the public will be scheduled between approximately 1 p.m. and 2 p.m. Eastern Time. Those individuals interested in making formal oral presentations should notify the contact person and submit a brief statement of the general nature of the evidence or arguments they wish to present, along with their names, email addresses, and direct contact phone numbers of proposed participants, on or before 12 p.m. Eastern Time on June 7, 2023. Time allotted for each presentation may be limited. If the number of registrants requesting to speak is greater than can be reasonably accommodated during the scheduled open public hearing session, FDA may conduct a lottery to determine the speakers for the scheduled open public hearing session. The contact person will notify interested persons regarding their request to speak by 6 p.m. Eastern Time June 9, 2023.

For press inquiries, please contact the Office of Media Affairs at *fdaoma@fda.hhs.gov* or 301–796–4540.

FDA welcomes the attendance of the public at its advisory committee meetings and will make every effort to accommodate persons with disabilities. If you require accommodations due to a disability, please contact Sussan Paydar or Prabhakara Atreya (see **FOR FURTHER INFORMATION CONTACT**) at least 7 days in advance of the meeting.

FDA is committed to the orderly conduct of its advisory committee meetings. Please visit our website at *https://www.fda.gov/AdvisoryCommittees/AboutAdvisoryCommittees/ucm111462.htm* for procedures on public conduct during advisory committee meetings.

Notice of this meeting is given under the Federal Advisory Committee Act (5 U.S.C. app. 2).

Dated: April 27, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–09490 Filed 5–3–23; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2022–D–0705]

Q9(R1) Quality Risk Management; International Council for Harmonisation; Guidance for Industry; Availability

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice of availability.

SUMMARY: The Food and Drug Administration (FDA or Agency) is announcing the availability of a final guidance for industry entitled ''Q9(R1) Quality Risk Management.'' The guidance was prepared under the auspices of the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH). The guidance is a targeted revision of the 2006 guidance for industry ''Q9 Quality Risk Management'' and addresses product availability risks due to manufacturing quality issues, lack of understanding as to what constitutes formality in Quality Risk Management (QRM) work, lack of clarity on risk-based decision-making, and high levels of subjectivity in risk assessments and QRM outputs. The revision is intended to provide guidance on quality risk management principles and tools that can be applied to different aspects of pharmaceutical quality. The guidance replaces the draft guidance ''Q9(R1) Quality Risk Management'' issued on June 15, 2022.

DATES: The announcement of the guidance is published in the **Federal Register** on May 4, 2023.

ADDRESSES: You may submit either electronic or written comments on Agency guidances at any time as follows:

Electronic Submissions

Submit electronic comments in the following way:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to *https://www.regulations.gov* will be posted to the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on *https://www.regulations.gov.*
- If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see ''Written/Paper Submissions'' and ''Instructions'').

Written/Paper Submissions

Submit written/paper submissions as follows:

- *Mail/Hand Delivery/Courier (for written/paper submissions):* Dockets Management Staff (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.
- For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked, and identified, as confidential, if submitted as detailed in ''Instructions.''

Instructions: All submissions received must include the Docket No. FDA–2022–D–0705 for ''Q9(R1) Quality Risk Management.'' Received comments will be placed in the docket and, except for those submitted as ''Confidential Submissions,'' publicly viewable at *https://www.regulations.gov* or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday.

- Confidential Submissions—To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states ''THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.'' The Agency will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on *https://www.regulations.gov.* Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as ''confidential.'' Any information marked as ''confidential'' will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA's posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: *https://www.govinfo.gov/content/pkg/FR-2015-09-18/pdf/2015-23389.pdf.*

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to *https://www.regulations.gov* and insert the docket number, found in brackets in the heading of this document, into the ''Search'' box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

You may submit comments on any guidance at any time (see 21 CFR 10.115(g)(5)).

Submit written requests for single copies of this guidance to the Division of Drug Information, Center for Drug Evaluation and Research, Food and Drug Administration, 10001 New Hampshire Ave., Hillandale Building, 4th Floor, Silver Spring, MD 20993–0002, or the Office of Communication, Outreach and Development, Center for Biologics Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 71, Rm. 3128, Silver Spring, MD 20993–0002. Send one self-addressed adhesive label to assist that office in processing your requests. The guidance may also be obtained by mail by calling the Center for Biologics Evaluation and Research at 1–800–835–4709 or 240–402–8010. See the **SUPPLEMENTARY INFORMATION** section for electronic access to the guidance document.

FOR FURTHER INFORMATION CONTACT:

Regarding the guidance: Rick Friedman, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, Rm. 4348, Silver Spring, MD 20993–0002, 301–796–3268 or Diane Maloney, Center for Biologics Evaluation and Research, Food and Drug Administration, 10906 New Hampshire Ave., Bldg. 71, Rm. 7301, Silver Spring, MD 20993–0005, 240–402–7914.

Regarding ICH: Jill Adleberg, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, Rm. 6364, Silver Spring, MD 20993–0002, 301–796–5259, *Jill.Adleberg@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

FDA is announcing the availability of a guidance for industry entitled ''Q9(R1) Quality Risk Management.'' The guidance was prepared under the

auspices of ICH. ICH seeks to achieve greater regulatory harmonization worldwide to ensure that safe, effective, high-quality medicines are developed, registered, and maintained in the most resource-efficient manner.

By harmonizing the regulatory requirements in regions around the world, ICH guidelines enhance global drug development, improve manufacturing standards, and increase the availability of medications. For example, ICH guidelines have substantially reduced duplicative clinical studies, prevented unnecessary animal studies, standardized the reporting of important safety information, and standardized marketing application submissions.

The six Founding Members of the ICH are the FDA; the Pharmaceutical Research and Manufacturers of America; the European Commission; the European Federation of Pharmaceutical Industries Associations; the Japanese Ministry of Health, Labour, and Welfare; and the Japanese Pharmaceutical Manufacturers Association. The Standing Members of the ICH Association include Health Canada and Swissmedic. ICH membership continues to expand to include other regulatory authorities and industry associations from around the world (refer to *https://www.ich.org/*).

ICH works by engaging global regulatory and industry experts in a detailed, science-based, and consensus-driven process that results in the development of ICH guidelines. The regulators around the world are committed to consistently adopting these consensus-based guidelines, realizing the benefits for patients and for industry.

As a Founding Regulatory Member of ICH, FDA plays a major role in the development of each of the ICH guidelines, which FDA then adopts and issues as guidance for industry. FDA's guidance documents do not establish legally enforceable responsibilities. Instead, they describe the Agency's current thinking on a topic and should be viewed only as recommendations, unless specific regulatory or statutory requirements are cited.

In the **Federal Register** of June 15, 2022 (87 FR 36135), FDA published a notice announcing the availability of a draft guidance entitled ''Q9(R1) Quality Risk Management.'' The notice gave interested persons an opportunity to submit comments by July 15, 2022.

After consideration of the comments received and revisions to the guideline, a final draft of the guideline was submitted to the ICH Assembly and endorsed by the regulatory agencies on January 18, 2023.

This guidance finalizes the draft guidance of the same title issued on June 15, 2022. The final guidance includes: (1) updated references, (2) a dedicated section to the subjectivity of QRM, (3) clarification on the application of risk management in the use of digitalization and emerging technologies, (4) an emphasis on root cause analysis, (5) a clearer definition of ''risk-based decision-making,'' and (6) an improved distinction between hazards, harms, and associated risks. The final guidance further addresses detection controls' link to reducing the probability of the occurrence of harm, situations which call for higher levels of QRM formality, and the importance of QRM regarding distribution practices.

This guidance is being issued consistent with FDA's good guidance practices regulation (21 CFR 10.115). The guidance represents the current thinking of FDA on ''Q9(R1) Quality Risk Management.'' It does not establish any rights for any person and is not binding on FDA or the public. You can use an alternative approach if it satisfies the requirements of the applicable statutes and regulations.

II. Paperwork Reduction Act of 1995

While this guidance contains no collection of information, it does refer to previously approved FDA collections of information. Therefore, clearance by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3521) is not required for this guidance. The previously approved collections of information are subject to review by OMB under the PRA. The collections of information in 21 CFR parts 210 and 211 relating to current good manufacturing practice requirements have been approved under OMB control number 0910–0139.

III. Electronic Access

Persons with access to the internet may obtain the guidance at *https://www.regulations.gov, https://www.fda.gov/drugs/guidance-compliance-regulatory-information/guidances-drugs, https://www.fda.gov/vaccines-blood-biologics/guidance-compliance-regulatory-information-biologics/biologics-guidances,* or *https://www.fda.gov/regulatory-information/search-fda-guidance-documents.*

Dated: May 1, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–09517 Filed 5–3–23; 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; Maternal and Child Health Bureau Performance Measures for Discretionary Grant Information System, OMB No. 0915–0298—Revision

AGENCY: Health Resources and Services Administration (HRSA), Department of Health and Human Services.

ACTION: Notice.

SUMMARY: In compliance with the requirement for opportunity for public comment on proposed data collection projects of the Paperwork Reduction Act of 1995, HRSA is submitting a request for public comment on redesigned Maternal and Child Health Bureau (MCHB) Performance Measures for Discretionary Grant Information System (DGIS) forms. The purpose of the redesigned DGIS forms is to facilitate higher quality data collection and develop streamlined, clear DGIS metrics to support communications about the range of HRSA's maternal and child health (MCH) programs. Proposed revisions include eliminating 52 forms, adding 25 new forms, and revising 23 existing forms. In addition, three forms have not undergone substantive revisions since the previously approved Office of Management and Budget (OMB) package and are included in the time burden estimate. HRSA seeks comments from the public regarding the burden estimate, below, or any other aspect of the Information Collection Request (ICR).

DATES: Comments on this ICR must be received no later than July 3, 2023.

ADDRESSES: Submit your comments to *paperwork@hrsa.gov* or mail the HRSA Information Collection Clearance Officer, Room 14N136B, 5600 Fishers Lane, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the data collection plans and draft instruments, email Samantha Miller, the HRSA Information Collection Clearance Officer, at *paperwork@hrsa.gov* or call 301–594–4394.

SUPPLEMENTARY INFORMATION: When submitting comments or requesting information, please include the information request collection title for reference.

Information Collection Request Title: MCHB Performance Measures for DGIS, OMB No. 0915–0298 Revision.

Abstract: Approval from OMB is sought to implement revisions to the MCHB Performance Measures for DGIS. The goals of the redesigned performance measures are to: (1) improve clarity and validity of DGIS forms; (2) increase alignment with MCHB's Strategic Plan and other performance measurement efforts; (3) produce timely, actionable data for program management; (4) support communications about the range of HRSA's MCH programs; (5) reduce the number and complexity of data collection forms; and (6) improve data quality.

The revised forms are grouped into two general categories: central measures and program specific measures. Central measures include basic, topical, activity, and outcome forms. There are also four sets of program-specific forms. Grant programs are assigned forms based on their activities and individual grantees respond to only a limited number of forms that are relevant to their specific program. Many of these forms are specific to certain types of programs and are not required of all grantees.

Forms are proposed to be added, removed, or revised beyond what was specified in the **Federal Register** notice (87 FR 35220) published on June 9, 2022. Many of the changes are a result of the redesigned categorization of measures. For example, the proposed set of activity forms capture common types of activities conducted across MCHB investments and replace the set of Population Domain forms (Adolescent Health, Capacity Building, Child Health, Children with Special Health Care Needs (CSHCN), Life Course/Cross Cutting, Maternal/Women Health, and Perinatal/Infant Health). The proposed set of basic forms consolidate and simplify the set of financial forms (Form 1, 3, 5, 7, and 8). Other changes reflect efforts to reduce burden or the need to relocate measures from the Population Domain forms to program-specific forms (*i.e.,* Healthy Start). Specifically, HRSA is making the following changes to the current information collection for DGIS:

Removing the following 52 existing forms: Capacity Building (CB) 1 (State Capacity for Advancing the Health of MCH Populations), CB 3 (Impact Measurement), CB 4 (Sustainability), CB 5 (Scientific Publications), CB 6 (Products), CB 8 (Quality Improvement), Women's/Maternal Health (WMH) 1 (Prenatal Care), WMH 2 (Perinatal/Postpartum Care), WMH 3 (Well Woman Visit/Preventive Health Care), WMH 4 (Depression Screening), Perinatal Infant Health (PIH) 1 (Safe Sleep), PIH 2 (Breast Feeding), PIH 3 (Newborn Screening), Child Health (CH) 1 (Well Child Visit), CH 2 (Quality of Well Child Visit), CH 3 (Developmental Screening), CH 4 (Injury Prevention), CSHCN 1 (Family Engagement), CSHCN 2 (Access to and Use of Medical Home), CSHCN 3 (Transition to Adult Health Care), Adolescent Health (AH) 1 (Adolescent Well Visit), AH 2 (Injury Prevention), AH 3 (Screening for Major Depressive Disorder), Life Course/Cross Cutting (LC) 1 (Adequate Health Insurance Coverage), LC 2 (Tobacco and eCigarette Cessation), LC 3 (Oral Health), Division of Workforce Development (Training) 01 (MCH Training Program and Healthy Tomorrows Family Member/Youth/Community Member Participation), Training 05 (Policy), Training 06 (Diversity of Long-Term Trainees), Training 10 (Leadership), Training 11 (Work with MCH Populations), Training 12 (Interdisciplinary Practice), Emergency Medical Services for Children (EMSC) 01 (Using NEMSIS Data to Identify Pediatric Patient Care Needs), EMSC 02 (Pediatric Emergency Care Coordination), EMSC 03 (Use of Pediatric-Specific Equipment), EMSC 05 (Pediatric Traumatic Emergencies), EMSC 06 (Written Inter-facility Transfer Guidelines that Contain All the Components as per the Implementation Manual), EMSC 07 (Written Inter-facility Transfer Agreements That Covers Pediatric Patients), Healthy Start (HS) 01 (Reproductive Life Plan), HS 02 (Usual Source of Care), HS 03 (Interconception Planning), HS 05 (Father/Partner Involvement during Pregnancy), HS 06 (Father and/or Partner Involvement with Child 0–24 Months), HS 07 (Daily Reading), HS 08 (CAN Implementation), HS 09 (CAN Participation), Form 3 (Budget Details by Types of Individuals Served), Form 5 (Number of Individuals Served (Unduplicated)), Form 7 (Discretionary Grant Project Summary Data and Demographics), Form 9 (Program-Specific Project Performance/Outcome Measures), Technical Assistance/Collaboration Form, and Continuing Education Form.

Adding the following 25 new forms: Direct and Enabling Services, Training and Workforce Development, Partnerships and Collaboration, Engagement of Persons with Lived Experience, Technical Assistance, Outreach and Education, Research, Guidelines and Policy, Data and Information Systems, Quality Improvement and Evaluation, Knowledge Change, Behavior Change, EMSC 10 (Prehospital Emergency Medical Services Pediatric Readiness Recognition Program), HS 10 (Prenatal Care), HS 11 (Perinatal/Postpartum Care), HS 12 (Well Woman Visit/Preventive Health Care), HS 13 (Depression Screening), HS 14 (Safe Sleep), HS 15 (Breastfeeding), HS 16 (Well Child Visit), HS 17 (Adequate Health Insurance Coverage), HS 18 (Prenatal Tobacco and eCigarette Use), HS 19 (Low Birthweight), HS 20 (Preterm Birth), and HS 21 (Infant Mortality).

Revising the following 23 existing forms: Health Equity, Healthy Start Site Form, Family to Family Form 1, Financial Form (MCHB Project Budget Details), Project Abstract (MCH Discretionary Grant Project Abstract), Project Abstract-Research Projects Only, Form 10 (Program-Specific and Project Developed Measures), Products, Publications, and Submissions Data Collection Form, Faculty and Staff Information, Short-Term Trainees, Medium-Term Trainees, Long-Term Trainees, Former Long-Term Trainees, LEAP Trainee Information, Training 02 (MCH Training Program and Healthy Tomorrows Cultural Competence), Training 03 (Healthy Tomorrows Title V Collaboration), Training 04 (Title V Collaboration), Training 07 (MCH Pipeline Program-Work with MCH Populations), Training 08 (MCH Pipeline Program-Work with underserved or vulnerable populations), Training 09 (MCH Pipeline-Graduate Program Enrollment), Training 15 (Consultation and Training for Mental and Behavioral Health), HS 04 (Intimate Partner Violence Screening), and EMSC 04 (Pediatric Medical Emergencies).

The following 3 forms are included with no substantive changes from the prior approved OMB package: Training 14 (Medium-Term Trainees Skill and Knowledge), EMSC 08 (Established Permanence of EMSC), and EMSC 09 (Established Permanence of EMSC by Integrating EMSC Priorities into Statutes/Regulations).

Additional non-substantive revisions include updates to terminology, goals, benchmark data sources, and significance sections included in the measures' detail sheets. A performance measure detail sheet defines and describes each performance measure. Forms and detail sheets showing the proposed revisions are available upon request.

Need and Proposed Use of the Information: The performance data collected through the DGIS serves several purposes, including grantee monitoring, program planning, and performance reporting, and the ability to demonstrate alignment between MCHB discretionary programs and the Title V

MCH Services Block Grant program. This revision will facilitate higher quality data collection; streamlined, clear DGIS metrics; and support communications about the range of HRSA's MCH programs.

Likely Respondents: Grantees for MCHB Discretionary Grant Programs.

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	Responses per respondent	Total responses	Burden hours per response	Total burden hours
Project abstract	817	1	817	1.33	1,087
Project Abstract (Research Projects Only)	58	1	58	0.66	38
Financial Form	817	1	817	0.87	711
Health Equity	817	1	817	0.47	384
Direct and Enabling Services	476	1	476	1.89	900
Training and Workforce Development	250	1	250	2.42	605
Partnerships and Collaboration	380	1	380	1.04	395
Engagement of Persons with Lived Experience	416	1	416	1.58	657
Technical Assistance	300	1	300	2.24	672
Outreach and Education	500	1	500	0.61	305
Research	65	1	65	3.11	202
Guidelines and Policy	78	1	78	0.70	55
Data and Information Systems	50	1	50	0.67	34
Quality Improvement and Evaluation	346	1	346	0.29	100
Knowledge Change	200	1	200	1.64	328
Behavior Change	200	1	200	1.56	312
Products and Publications	672	1	672	4.23	2,843
Training Form 2	168	1	168	0.69	116
Training Form 3	41	1	41	0.99	41
Training Form 4	130	1	130	1.52	198
Training Form 7	6	1	6	0.83	5
Training Form 8	6	1	6	0.75	5
Training Form 9	6	1	6	0.92	6
Training Form 14	6	1	6	3.64	22
Training Form 15	52	1	52	3.17	165
Faculty and Staff Information	124	1	124	1.92	238
Short-Term Trainees	8	1	8	0.67	5
Medium-Term Trainees	121	1	121	2.49	301
Long-Term Trainees	112	1	112	6.37	713
Former Long-Term Trainees	106	1	106	1.60	170
LEAP Trainee Information	6	1	6	0.65	4
HS 4	101	1	101	0.57	58
HS 10	101	1	101	0.31	31
HS 11	101	1	101	0.61	62
HS 12	101	1	101	0.33	33
HS 13	101	1	101	0.50	51
HS 14	101	1	101	0.43	43
HS 15	101	1	101	0.45	45
HS 16	101	1	101	0.39	39
HS 17	101	1	101	0.40	40
HS 18	101	1	101	0.33	33
HS 19	101	1	101	0.38	38
HS 20	101	1	101	0.37	37
HS 21	101	1	101	0.36	36
Healthy Start Site Form	101	1	101	0.32	32
EMSC 4	58	1	58	0.92	53
EMSC 8	58	1	58	0.09	5
EMSC 9	58	1	58	0.42	24
EMSC 10	58	1	58	0.46	27
Family to Family Form 1	59	1	59	2.76	163
Form 10	200	2	400	12.87	5,148
Total	*817		817		17,615

*The number of grantees is an estimate as it fluctuates each year.

HRSA specifically requests comments on (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.

Maria G. Button,

Director, Executive Secretariat.

[FR Doc. 2023–09466 Filed 5–3–23; 8:45 am]

BILLING CODE 4165–15–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Allergy and Infectious Diseases; 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 of Allergy and Infectious Diseases Special Emphasis Panel; NIAID Resource Related Research Projects (R24 Clinical Trial Not Allowed).

Date: May 26, 2023.

Time: 10:00 a.m. to 12:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institute of Allergy and Infectious Diseases, National Institutes of Health, 5601 Fishers Lane, Room 3G42, Rockville, MD 20892 (Virtual Meeting).

Contact Person: Sandip Bhattacharyya, Ph.D., Scientific Review Officer, Scientific Review Program, Division of Extramural Activities, National Institute of Allergy and Infectious Diseases, National Institutes of Health, 5601 Fishers Lane, Room 3G42, Rockville, MD 20852, (240) 292–0189, *sandip.bhattacharyya@nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.855, Allergy, Immunology, and Transplantation Research; 93.856, Microbiology and Infectious Diseases Research, National Institutes of Health, HHS)

Dated: April 28, 2023.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–09441 Filed 5–3–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute on Minority Health and Health Disparities; Notice of Closed Meeting

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of a meeting of the National Institute on Minority Health and Health Disparities Special Emphasis Panel.

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 Minority Health and Health Disparities Special Emphasis Panel; NIH Support for Conferences and Scientific Meetings (R13).

Date: June 15, 2023.

Time: 2:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, NIMHD, DEM II, Suite 800, 6707 Democracy Boulevard, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Xinli Nan, M.D., Ph.D., Scientific Review Officer, Office of Extramural Research Activities, National Institute on Minority Health and Health Disparities, National Institutes of Health, 6707 Democracy Boulevard, Suite 800, Bethesda, MD 20892, (301) 594–7784, *Xinli.Nan@nih.gov.*

Dated: April 28. 2023.

David W. Freeman,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–09449 Filed 5–3–23; 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 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 Environmental Health Sciences Special Emphasis Panel: Centers for Oceans and Human Health 4: Impacts of Climate Change on Oceans and Great Lakes.

Date: May 23–25, 2023.

Time: 10:30 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institute of Environmental Health Sciences, Keystone Building, 530 Davis Drive, Research Triangle Park, NC 27713 (Virtual Meeting).

Contact Person: Linda K. Bass, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Research and Training, Nat. Institute Environmental Health Sciences, P.O. Box 12233, MD EC–30, Research Triangle Park, NC 27709, 984–287–3236, *bass@niehs.nih.gov.*

Name of Committee: National Institute of Environmental Health Sciences Special Emphasis Panel: Research Mechanism for Emerging Contaminant/Exposure Studies in the Environmental Health Sciences.

Date: June 5, 2023.

Time: 10:30 a.m. to 2:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institute of Environmental Health Sciences, Keystone Building, 530 Davis Drive, Research Triangle Park, NC 27713 (Virtual Meeting).

Contact Person: Leroy Worth, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Research and Training, Nat. Institute of Environmental Health Sciences, P.O. Box 12233, MD EC–30/Room 3171, Research Triangle Park, NC 27709, 984–287–3340, *worth@niehs.nih.gov.*

Name of Committee: National Institute of Environmental Health Sciences, Special Emphasis Panel: VICTER Award R01 Grant Applications.

Date: June 13–14, 2023.

Time: 10:30 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institute of Environmental Health Sciences, Keystone Building, 530 Davis Drive, Research Triangle Park, NC 27713 (Virtual Meeting).

Contact Person: Varsha Shukla, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Research and Training, National Institute of Environmental Health Science, 530 Davis Dr., Keystone Bldg, Room 3094, Durham, NC 27713, 984–287–3288, *Varsha.shukla@nih.gov.*

(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: April 28, 2023.

David W. Freeman,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–09450 Filed 5–3–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; 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: Heart, Lung, and Blood Initial Review Group; NHLBI Mentored Clinical and Basic Science Study Section.

Date: June 22–23, 2023.

Time: 9:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Bethesda North Marriott Hotel & Conference Center, 5701 Marinelli Road, Bethesda, MD 20852 (Hybrid Meeting).

Contact Person: Rajiv Kumar, Ph.D., Chief, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, 6705 Rockledge Drive, Bethesda, MD 20892, (301) 827–4612, *rajiv.kumar@nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)

Dated: April 28, 2023.

David W. Freeman,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–09439 Filed 5–3–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; Notice of Proposed Reorganization

AGENCY: National Institutes of Health, HHS.

ACTION: Notice.

SUMMARY: The National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health (NIH) will host a public hearing to enable discussion of the Institute's proposal to reorganize the Division of Lung Disease (DLD). The proposed reorganization aims to ensure effective oversight, alignment of expertise, and translation of knowledge within and across research areas in the lung disease field. It establishes a new branch structure that will strategically position leadership over DLD programs, balance workload, and enhance depth/succession planning for ingrained operational sustainability. There will be no impact on the National Center on Sleep Disorders Research as a result of the restructuring. The online forums will allow members of the public to review the reorganization proposals and submit comments.

DATES: The first public hearing will take place June 6, 2023, at approximately 11:30 a.m. E.T. during the open session of the National Heart, Lung, and Blood Institute Advisory Committee meeting. The second public hearing will take place on June 7, 2023, from 12:00 p.m. to 1:00 p.m. E.T. using the NHLBI DLD Director's Twitter account. Any interested person may also file written comments by sending an email to *nhlbi_dld@nhlbi.mail.gov* prior to June 7, 2023. The statement should include the individual's name, and when applicable, professional affiliation.

ADDRESSES: The following email address may be used for comments on the reorganization: *nhlbi_dld@nhlbi.mail.gov.*

The link to the videocast for the first public hearing to occur during the open session of the NHLBI Advisory Council meeting will be posted online at: *https://www.nhlbi.nih.gov/about/advisory-and-peer-review-committees/advisory-council.*

The second public hearing will be held via Twitter using *@NHLBI_LUNGDir.*

FOR FURTHER INFORMATION CONTACT: Tony Jackson, Chief of Staff, Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health, Rockledge Center I, 6705 Rockledge Drive, 4th Floor, Bethesda 20817, 301–435–0233, *nhlbi_dld@nhlbi.mail.gov.*

SUPPLEMENTARY INFORMATION: The NIH Reform Act of 2006 (42 U.S.C. 281(d)(4)) requires public notice of proposed reorganization plans. This announcement and the public forum serve as that notice.

Dated: April 27, 2023.

James F. Gude,

Acting Executive Officer, National Heart, Lung and Blood Institute, National Institutes of Health.

[FR Doc. 2023–09452 Filed 5–3–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of General Medical Sciences; 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: NIGMS Initial Review Group Training and Workforce Development Study Section–D; Review of IMSD and PREP Applications.

Date: June 8–9, 2023.

Time: 9:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: The Bethesdan Hotel, Tapestry Collection by Hilton, 8120 Wisconsin

Avenue, Bethesda, Maryland 20892 (Hybrid Meeting).

Contact Person: Marc Rigas, Ph.D., Scientific Review Officer, Office of Scientific Review, National Institutes of General Medical Sciences, National Institute of Health, 45 Center Drive, Room 3AN18C, Bethesda, Maryland 20892, 301–827–0648, *marc.rigas@nih.gov*.

Name of Committee: NIGMS Initial Review Group Training and Workforce Development Study Section–C; Review of G–RISE, IMSD, and PREP Applications.

Date: June 15–16, 2023.

Time: 10:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: The Bethesdan Hotel, Tapestry Collection by Hilton, 8120 Wisconsin Avenue, Bethesda, Maryland 20892 (Hybrid Meeting).

Contact Person: Sonia Ivette Ortiz-Miranda, Ph.D., Scientific Review Officer, Scientific Review Branch, National Institute of General Medical Sciences, National Institutes of Health, 45 Center Drive, MSC 6200, Bethesda, Maryland 20892, 301–402–9448, *sonia.ortiz-miranda@nih.gov*.

Information is also available on the Institute's/Center's home page: *www.nigms.nih.gov/,* where an agenda and any additional information for the meeting will be posted when available.

(Catalogue of Federal Domestic Assistance Program No. 93.859, Biomedical Research and Research Training, National Institutes of Health, HHS)

Dated: May 1, 2023.

Miguelina Perez,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–09521 Filed 5–3–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Office of the Director; Notice of Charter Renewal

In accordance with title 41 of the U.S. Code of Federal Regulations, section 102–3.65(a), notice is hereby given that the Charter for the Center for Scientific Review Advisory Council was renewed for an additional two-year period on March 31, 2023.

It is determined that the Center for Scientific Review Advisory Council is in the public interest in connection with the performance of duties imposed on the National Institutes of Health by law, and that these duties can best be performed through the advice and counsel of this group.

Inquiries may be directed to Claire Harris, Director, Office of Federal Advisory Committee Policy, Office of the Director, National Institutes of Health, 6701 Democracy Boulevard, Suite 1000, Bethesda, Maryland 20892 (Mail code 4875), Telephone (301) 496–2123, or *harriscl@mail.nih.gov.*

Dated: April 28, 2023.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–09440 Filed 5–3–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; 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: Heart, Lung, and Blood Initial Review Group; NHLBI Mentored Transition to Independence Study Section.

Date: June 15–16, 2023.

Time: 9:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, RKL1, 6705 Rockledge Drive, Bethesda, MD 20890 (Virtual Meeting).

Contact Person: Giuseppe Pintucci, Ph.D., Scientific Review Officer, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, National Institutes of Health, 6705 Rockledge Drive, Room 205–H, Bethesda, MD 20892, (301) 827–7969, *Pintuccig@nhlbi.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)

Dated: April 28, 2023.

David W. Freeman,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–09438 Filed 5–3–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; 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: Heart, Lung, and Blood Initial Review Group; Clinical Trials Review Study Section.

Date: June 22, 2023.

Time: 10:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge 1, 6705 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Keary A Cope, Ph.D., Scientific Review Officer, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, National Institutes of Health, 6705 Rockledge Drive, Room 209–A, Bethesda, MD 20892–7924, (301) 827–7912, *copeka@mail.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)

Dated: April 28, 2023.

David W. Freeman,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–09451 Filed 5–3–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Substance Abuse and Mental Health Services Administration

Notice of Meeting for the Interdepartmental Substance Use Disorders Coordinating Committee (ISUDCC)

AGENCY: Substance Abuse and Mental Health Services Administration (SAMHSA), Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Secretary of Health and Human Services (Secretary) announces a meeting of the Interdepartmental Substance Use Disorders Coordinating Committee (ISUDCC). The ISUDCC is open to the public and members of the public can attend the meeting via telephone or webcast only, and not in person. Agenda with call-in information will be posted on the SAMHSA website prior to the meeting at: *https://www.samhsa.gov/about-us/advisory-councils/meetings.* The meeting will include information on the progress of the ISUDCC Working Groups, discussion of the ISUDCC Reauthorization, and sections 1262 and 1263 of the Consolidated Appropriations Act, 2023, commonly known as the Mainstreaming Addiction Treatment (MAT) Act and Medication Access and Training Expansion (MATE) Act.

Committee Name: Interdepartmental Substance Use Disorders Coordinating Committee (ISUDCC).

DATES: June 5, 2023, 9:30 a.m.–12:30 p.m. EST/Open.

ADDRESSES: The meeting will be held virtually.

The meeting can be accessed via Zoom.

FOR FURTHER INFORMATION CONTACT: Tracy Goss, ISUDCC Designated Federal Officer, Substance Abuse and Mental Health Services Administration, 5600 Fishers Lane, Rockville, MD 20857; telephone: 240–276–0759; email: *Tracy.Goss@samhsa.hhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background and Authority

The Interdepartmental Substance Use Disorders Coordinating Committee is required under section 7022 of the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act (SUPPORT Act, Pub. L. 115–271) to accomplish the following duties: (1) identify areas for improved coordination of activities, if any, related to substance use disorders, including research, services, supports, and prevention activities across all relevant federal agencies; (2) identify and provide to the Secretary recommendations for improving federal programs for the prevention and treatment of, and recovery from, substance use disorders, including by expanding access to prevention, treatment, and recovery services; (3) analyze substance use disorder prevention and treatment strategies in different regions of and populations in the United States and evaluate the extent to which federal substance use disorder prevention and treatment strategies are aligned with State and local substance use disorder prevention and treatment strategies; (4) make recommendations to the Secretary regarding any appropriate changes with respect to the activities and strategies described in items (1) through (3) above; (5) make recommendations to the Secretary regarding public participation in decisions relating to substance use disorders and the process by which public feedback can be better integrated into such decisions; and (6) make recommendations to ensure that substance use disorder research, services, supports, and prevention activities of the Department of Health and Human Services and other Federal agencies are not unnecessarily duplicative.

Not later than one year after the date of the enactment of this Act, and annually thereafter for the life of the Committee, the Committee shall publish on the internet website of the Department of Health and Human Services, which may include the public information dashboard established under section 1711 of the Public Health Service Act, as added by section 7021, a report summarizing the activities carried out by the Committee pursuant to subsection (e), including any findings resulting from such activities.

II. Membership

This ISUDCC consists of federal members listed below or their designees, and non-federal public members.

Federal Membership: Members include, The Secretary of Health and Human Services; The Attorney General of the United States; The Secretary of Labor; The Secretary of Housing and Urban Development; The Secretary of Education; The Secretary of Veterans Affairs; The Commissioner of Social Security; The Assistant Secretary for Mental Health and Substance Use; The Director of National Drug Control Policy; representatives of other Federal agencies that support or conduct activities or programs related to substance use disorders, as determined appropriate by the Secretary, or their designees.

Non-Federal Membership: Members include, 17 non-Federal public members appointed by the Secretary, representing individuals who have received treatment for a diagnosis of a substance use disorder; directors of State substance use agencies; representatives of leading research, advocacy, or service organizations for adults with substance use disorder; physicians, licensed mental health professionals, advance practice registered nurses, and physician assistants, who have experience in treating individuals with substance use disorders; substance use disorder treatment professionals who provide treatment services at a certified opioid treatment program; substance use disorder treatment professionals who have research or clinical experience in working with racial and ethnic minority populations; substance use disorder treatment professionals who have research or clinical mental health experience in working with medically underserved populations; state-certified substance use disorder peer support specialists; drug court judge or a judge with experience in adjudicating cases related to substance use disorder; public safety officers with extensive experience in interacting with adults with a substance use disorder; and individuals with experiences providing services for homeless individuals with a substance use disorder.

The ISUDCC is required to meet at least twice per calendar year.

To attend virtually, submit written or brief oral comments, or request special accommodation for persons with disabilities, contact Tracy Goss. Individuals can also register on-line at: *https://snacregister.samhsa.gov/.*

The public comment section will be scheduled at the conclusion of the meeting. Individuals interested in submitting a comment, must notify Tracy Goss on or before May 26, 2023, via email to: *Tracy.Goss@samhsa.hhs.gov.*

Up to two minutes will be allotted for each approved public comment as time permits. Written comments received in advance of the meeting will be considered for inclusion in the official record of the meeting.

Substantive meeting information and a roster of Committee members is available at the Committee's website: *https://www.samhsa.gov/about-us/advisory-councils/meetings.*

Dated: May 1, 2023.

Carlos Castillo,

Committee Management Officer.

[FR Doc. 2023–09481 Filed 5–3–23; 8:45 am]

BILLING CODE 4162–20–P

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Notice of Issuance of the Department of the Army Program Comment for Vietnam War Era Historic Housing, Associated Buildings and Structures, and Landscape Features (1963–1975)

AGENCY: Advisory Council on Historic Preservation.

ACTION: Notice of issuance.

SUMMARY: The Advisory Council on Historic Preservation has issued a program comment for the U.S. Department of the Army that sets forth the way in which the Army complies with the National Historic Preservation Act for its inventory of Vietnam War Era historic housing management actions, including: maintenance, repair, rehabilitation, renovation, abatement of hazardous materials, mothballing, cessation of maintenance, demolition, new construction, lease, transfer, conveyance, and the use of modern readily available industry standard building materials and methods in the implementation of management actions.

DATES: The Program Comment went into effect on March 17, 2023.

ADDRESSES: Address any questions concerning the Program Comment to Megan Borthwick, Office of Federal Agency Programs, Advisory Council on Historic Preservation, 401 F Street NW, Suite 308, Washington, DC 20001, *mborthwick@achp.gov*

FOR FURTHER INFORMATION CONTACT: Megan Borthwick, (202) 517–0221, *mborthwick@achp.gov.*

SUPPLEMENTARY INFORMATION: Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108 (section 106), requires federal agencies to consider the effects of projects they carry out, license, or assist (undertakings) on historic properties and to provide the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment with regard to such undertakings. The ACHP has issued the regulations that set forth the process through which federal agencies comply with these duties. Those regulations are codified under 36 CFR part 800 (section 106 regulations).

Under section 800.14(e) of those regulations, agencies can request the ACHP to provide a ''program comment'' on a particular category of undertakings in lieu of conducting individual reviews of each individual undertaking under such category, as set forth in 36 CFR 800.4 through 800.7. An agency can meet its Section 106 responsibilities with regard to the effects of those undertakings by taking into account an applicable program comment and following the steps set forth in that comment.

The U.S. Department of the Army (Army) sought a program comment for its management actions related to its inventory of approximately 7,800 Vietnam War Era historic housing units. Actions could include maintenance, repair, rehabilitation, renovation, abatement of hazardous materials, mothballing, cessation of maintenance, demolition, new construction, lease, transfer, conveyance, and the use of modern readily available industry standard building materials and methods in the implementation of management actions. These actions present a potential for adverse effects to historic properties.

The ACHP issued the Program Comment for Army Vietnam War Era Historic Housing, Associated Buildings and Structures, and Landscape Features (1963–1975) (Program Comment) on March 17, 2023. The section 106 regulations require that such program comments be published in the **Federal Register**.

I. Need for the Program Comment

The need for this Program Comment is based on the Army's obligation to provide safe, healthy, quality housing to Soldiers and their families, and the unique challenges the Army has in managing NHPA Section 106 compliance for its large and growing inventory of historic housing. Housing and associated living conditions are critical factors for military families. A direct connection exists between poor housing conditions and military readiness. In 2019, the Secretary of the Army declared an Army Housing Crisis due primarily to widespread deficiencies and significant quality of life, health, and safety issues affecting military families living in historic Army housing.

To address the Army Housing Crisis and meet its housing obligations to military families, the Army must quickly and efficiently implement management actions to improve Army Vietnam War Era housing conditions affecting the quality of life for Soldiers and their families. The section 106 project-by-project review process under existing installation-level Programmatic Agreements (PAs) may contribute to delays in completing historic housing maintenance, repairs, and improvements needed for the transition in occupancy. Those delays could directly impact the ability of reassigned military families to move-in and occupy historic housing.

The compliance process efficiencies created by the Program Comment allows the Army to quickly and efficiently address the health and safety risks from certain hazardous historic building materials, ensure cost efficient, effective, and consistent management of the overall inventory, and implement climate adaptations and use modern resilient materials.

II. Vietnam War Era Housing and the Program Comment

The Army has the largest housing mission in the Federal Government, managing over 100,000 total housing units for Soldiers and their families. Over 7,800 of these historic units are from the Vietnam War Era (1963–1975). The Army's inventory of Vietnam War Era housing is located at 18 installations in 13 states.

The intent of the Program Comment is to provide the Army with NHPA section 106 compliance for repetitive, recurring property management actions on all privatized and non-privatized Army housing, associated buildings and structures, and landscape features constructed from 1963 through and including 1975. The property management actions addressed by the Program Comment are maintenance, repair, rehabilitation, renovation, abatement of hazardous materials, mothballing, cessation of maintenance, demolition, new construction, lease, transfer, conveyance, and the use of modern readily available industry standard building materials and methods. The Army's Vietnam War Era housing property type is historically significant under National Register of Historic Places Criterion A based on its historical association with the Vietnam War. These management actions may result in adverse effects.

The Vietnam War was a major event in American history from the early 1960s through the mid-1970s. The heightened warfighting requirements and costs had direct implications for military activities at installations in the United States, including the Army family housing construction program. The 1964 DoD Design Folio objectives dictated the development of a family housing development plan that would provide reduced costs in siting, construction, and maintenance. A proposed solution included the townhouse design developments. Multi-story, row-unit townhouses, closely sited within large open areas were recognized as creating the required economies of scale. While ranch style single family and duplex housing designs for senior officers were included in the DoD Design Folio and continued

to be constructed, townhouse and apartment construction on Army installations predominated during the Vietnam War Era. The Army's Vietnam War Era housing inventory illustrates the historical progression of Army housing policy and the influences of wartime requirements and finances.

III. Properties of Particular Importance and Neighborhood Design Guidelines

The Army identified a subset of eligible properties that retain the highest degree of integrity and designated them as Properties of Particular Importance (PPI). PPI, located exclusively at Schofield Barracks, Oahu, Hawaii, make up over 7% of the total inventory of Army Vietnam War Era Housing. The Program Comment includes a consultation process to follow when PPI are proposed for cessation of maintenance or demolition. The Army completed additional documentation of the PPI as mitigation included in the Historic Context Report.

Additional mitigation includes development of Neighborhood Guidelines in coordination with ACHP. The guidelines will set clear parameters for all management actions including new construction. The Army will complete the guidelines within one year of Program Comment issuance.

IV. Consultation on the Program Comment

The Army formally submitted this Program Comment to the ACHP twice, resulting in two rounds of consultation for both the Army and the ACHP. The Army sought participation from the public, State Historic Preservation Officers (SHPOs), Indian tribes, Native Hawaiian Organizations (NHOs), and other interested parties in the Program Comment's development prior to formally submitting its request for a Program Comment to the ACHP.

In accordance with 36 CFR 800.14(e)(2)(3)(4), the ACHP conducted consultation with State Historic Preservation Officers (SHPOs), Tribal Historic Preservation Officers, Indian Tribes, and Native Hawaiian organizations and provided for public participation.

During the first round of consultation in September 2022, outreach consisted of broadcast emails, social media posts, and a dedicated website for the Program Comment. The ACHP conducted two government-to-government consultations with Indian Tribes with a total of four participants. Additionally, the ACHP conducted two SHPO meetings with a total of eleven participants. Nine written comments were received. Written comments included support for the efficiencies provided in the program comment, requests to receive notification as appropriate in the case of unanticipated discoveries, and substantive comments addressed below. During consultation, the ACHP received comments regarding new construction in the context of this Program Comment, identification of Properties of Particular Importance the review process for these properties of particular importance, and inclusion of demolition and conveyance in program comments.

The ACHP received comments regarding the definition of new construction within the context of the Program Comment. ACHP Staff worked with the Army to refine the definition of new construction in the context of this Program Comment which now clarifies that new construction is limited to the boundaries of the previously disturbed areas in the Vietnam War Era neighborhoods. The definition was adjusted to differentiate between disturbed and undisturbed areas and clarifies that new housing construction only occurs within the boundaries of existing Vietnam War Era housing neighborhoods. Any impacts to known archaeological resources or unanticipated discoveries are outside of the scope of this Program Comment.

Some consulting parties argued that the process proposed for review of cessation of maintenance and demolition of properties of particular importance provided limited opportunities for substantive consultation. The Army agreed to replace that Program Comment based review process with the standard process for resolving adverse effects within the Section 106 regulations at 36 CFR 800.6–800.7, which would allow for individual reviews and consultation.

Some consulting parties commented that provisions within the Program Comment for identifying PPI were very general and, if implemented, may not result in the identification of any such properties. The Army identified and designated PPI prior to resubmitting the Program Comment.

Inclusion of Cessation of Maintenance, Demolition, New Construction, and Conveyance in Program Comments continued to be a concern to some during consultation. The ACHP has consistently maintained demolition may be considered an appropriate management action within a program comment, which is why the ACHP has frequently issued program comments that include demolition and new construction as management actions. The purpose of the overall Program Comment is to manage the entire inventory of Vietnam War Era housing. Demolition is just one of many management actions (category of undertakings) within the scope of the Program Comment which is largely focused on maintenance actions. ACHP staff further noted that demolition as a management action has typically been used sparingly by Federal agencies that implement similar program comments. For example, the Capehart-Wherry Program Comment includes demolition as a management action and only 3% of the units have been demolished since 2002.

The second round of consultation conducted in February 2023, consisted of broadcast email, social media posts, and a dedicated website for the program comment. The ACHP conducted one virtual government-to-government consultation with Indian Tribes and NHOs for which no one called in and one virtual SHPO consultation meeting with four participants. The ACHP also hosted a special Membership meeting.

During the consultation period, the ACHP received four responses from Tribes with no concerns, one response from a SHPO office with no concerns and five substantive comments from preservation organizations. Substantive comments included concerns regarding use of terminology such as Properties of Particular Importance that are unique to this Program Comment; consideration of the neighborhood characteristics; and appropriate digital retention of documentation. Additional concerns included the inclusion of cessation of maintenance, demolition, new construction, and conveyance in the Program Comment.

ACHP Staff worked with the Army to address these comments and concerns. Army incorporated additional justification for inclusion of cessation of maintenance and demolition into the Program Comment and provided information on the installation specific programmatic agreements which cover housing at the affected installations. Opportunities for SHPO and consulting party review and comment are built into the process for cessation of maintenance or demolition of Properties of Particular Importance. The Army added a mitigation measure to develop neighborhood design guidelines which will address neighborhood characteristics and cover the management actions included in the Program Comment. The guidelines will be developed in coordination the ACHP and completed within one year of the program comment issuance. The Army also appended the two-volume historic context report by reference to the Program Comment. Survey information,

identification, designation, and documentation of the Properties of Particular Importance can be found in the historic context report.

V. More Information

For further information on the Program Comment and the Army's Vietnam War Era Historic Context Report Volumes 1 and 2 incorporated as appendices by reference, see *https://www.denix.osd.mil/army-vwehh-pc/.*

VI. Clarification Regarding Army Housing Partners

The ACHP interprets the Program Comment to allow the Army to ensure compliance with its terms regarding privatized housing by imposing such requirements on its housing partners.

VII. Text of the Program Comment

What follows is the text of the issued Program Comment:

Program Comment for Department of the Army Vietnam War Era Housing, Associated Buildings and Structures, and Landscape Features (1963–1975)

1.0. Introduction and Need for the Program Comment

1.1. Introduction

Section 106 of the National Historic Preservation Act (NHPA), 54 U.S.C. 306108, requires Federal agencies to take into account the effects of projects they carry out, license, or assist (undertakings) on historic properties, and to provide the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment regarding such undertakings. The ACHP has issued the regulations that set forth the process through which Federal agencies comply with these responsibilities. Those regulations are codified under 36 CFR 800 (Section 106 regulations).

Under 36 CFR 800.14(e), federal agencies can request the ACHP provide Program Comments on a category of undertakings, in lieu of conducting individual reviews of those undertakings under 36 CFR 800.3–800.7. An agency can meet its NHPA Section 106 responsibilities regarding the effects of a category of undertakings on historic properties by following the steps set forth by the ACHP in a Program Comment.

The Army's real property is a vital component of its national defense mission, and many of the buildings and structures constructed by the Army over its 247-year history are now historic properties. Among those historic properties, historic housing is a significant concern; it is a large part of the Army's total housing inventory, is critical to the readiness mission and well-being of thousands of Soldiers and their families, and it requires extensive financial resources and process time for compliance with NHPA Section 106 and 36 CFR 800.

The Army has a unique and significant challenge among federal agencies in managing NHPA Section 106 compliance for its inventory of historic housing. The Army manages the largest inventory of historic housing in the federal government with over 30,000 historic homes currently over 50 years old and subject to NHPA Section 106 requirements. The Army's historic housing inventory includes examples that span from the early 19th century through the modern historic housing of the late 20th century that is subject of this Program Comment. The Army's historic housing represents a diverse inventory of American domestic architectural styles with highly varied levels of architectural integrity and historic significance. The Army will have an additional 70,000 modern historic homes added to its historic housing inventory over the next 50 years and will in this century have an unprecedented total of over 100,000 historic homes subject to NHPA Section 106 requirements.

This Program Comment for Department of the Army (Army) Vietnam War Era Historic Housing, Associated Buildings and Structures, and Landscape Features (1963–1975) (Program Comment) provides the Army with an alternative means to comply with NHPA Section 106 regarding the category of undertakings termed management actions for its inventory of Vietnam War Era housing, associated buildings and structures, landscapes, and landscape features (Vietnam War Era housing). The Army has over 7,800 modern historic homes constructed during the 13-year Vietnam War Era from 1963–1975. Management actions required for this housing include maintenance, repair, rehabilitation, renovation, abatement of hazardous materials, mothballing, cessation of maintenance, demolition, new construction, lease, transfer, conveyance, and the use of modern, readily available industry standard building materials and methods in the implementation of management actions.

1.2. Need for the Program Comment

The need for this Program Comment is found in the Army's obligation to provide safe, healthy, quality housing to Soldiers and their families, and the unique challenges the Army has in managing NHPA Section 106 compliance for its large and growing inventory of historic housing. In 2019, the Secretary of the Army declared an Army Housing Crisis due primarily to widespread deficiencies and significant quality of life, health, and safety issues effecting military families living in historic Army housing.

To address the Army Housing Crisis and meet its housing obligations to military families, the Army must implement management actions to improve Army Vietnam War Era housing conditions effecting the quality of life for Soldiers and their families; address the health and safety risks from certain hazardous historic building materials; ensure cost efficient, effective, and consistent management of the overall inventory; implement climate adaptations and use modern resilient materials; and improve the NHPA Section 106 compliance processes times for actions intended to preserve Vietnam War Era housing.

Housing and associated living conditions are critical factors for military families in the context of the challenges and stressors Soldiers and their families must cope with in their daily lives. A direct connection exists between poor housing conditions and military readiness. Concerns among service members about poor housing conditions have been found to make it difficult to focus on the military mission, some service members are leaving the military because of poor housing conditions, and the issue is also impacting the ability to recruit new service members (GAO Report 20–281, Military Housing, March 2020).

Housing during the Vietnam War Era was constructed with single-pane windows, asbestos containing shingles and siding, minimal wall and attic insulation, galvanized steel pipes for water supply, cast iron drainpipes, 100-amp circuit breakers, obsolete HVAC components, and lead-based paint and asbestos containing building materials. Most original building materials in Army Vietnam War Era housing have been replaced. The housing is smaller, and floorplans are obsolete relative to the modern standards expected by military families. While improvements to Army Vietnam War Era housing have been made in the past, many requirements remain, and many continue to arise and create a continuous need for implementation of the management actions addressed in this Program Comment.

The Army must address both its current historic housing challenges and emerging 21st century challenges. Emergent 21st century challenges include the unprecedented growth in

the Army's inventory of modern historic housing that will occur over the next 50 years, the related surge in NHPA Section 106 compliance requirements and associated significant financial and compliance process time impacts. Additionally, as climate risks intensify, there is an increased need to use resilient current industry standard building materials and implement climate adaptation measures to ensure modern historic Army housing remains sustainable.

The Army must address the extensive recurring maintenance, repair, and rehabilitation requirements for Vietnam War Era housing and seek to control those costs using industry standard building materials. The Army must abate the historic building materials used in housing from this period that present lead-based paint, asbestos, and other hazards to housing occupants; implement renovations that address the need for additional bedrooms and expanded living space; provide kitchen and bathroom improvements; implement climate change adaptations through the use of modern, climate resilient, energy efficient building materials and other energy efficiency measures; modernize heating, cooling and ventilation systems; modernize plumbing and electrical systems; and address NHPA compliance processes that impact the rapid turnaround and occupancy of housing by reassigned military families.

The Army also has the need to lease, transfer, or convey Vietnam War Era housing to facilitate housing operations by its housing privatization partners under the Army's Residential Communities Initiative (RCI). RCI operates under Army authority on Army installations nationwide through legal partnerships between the Army and private sector developers. Lease, transfer, and conveyance involves the execution of lease, transfer, and other conveyance documents for the purposes of transfer of Vietnam War Era housing to and between RCI partners, between RCI partners and the Army, and out of RCI partner or government ownership.

The Army must holistically manage its total inventory of Vietnam War Era housing to make certain the housing is preserved and maintained as a viable real property asset into the future. Managers of large inventories of real property understand that total inventory management includes the recurring need to at times cease maintenance and demolish certain properties that are no longer viable real property assets. For Army Vietnam War Era housing, cessation of maintenance and demolition are inventory management tools that reduce the excessive costs associated with maintaining certain homes that are no longer viable real property assets. The resulting cost savings are reinvested to maintain and preserve the remaining housing inventory as viable property assets. Cessation of maintenance and demolition may be required for certain Army Vietnam War Era housing when deterioration effects the structural integrity of homes, the habitability of homes, or the quality of life of military family occupants; when the homes are no longer needed, stand vacant and are expected to remain vacant into the foreseeable future; where hazardous materials and unsafe conditions exist that could affect the health and safety of occupants; and when new replacement housing is needed to improve the overall quality of life for military families. The majority of Program Comments issued by the ACHP over the past 20 years recognize the necessity for and include demolition as an accepted inventory management tool.

The role of demolition and reinvestment in the long-term preservation of modern historic Army housing is confirmed by 20 years of information from the Program Comment for Army Capehart-Wherry housing (1949–1962). In 2002, when ACHP issued the Program Comment for Army Capehart-Wherry housing allowing demolition and other total inventory management actions, there were 19,036 Army Capehart-Wherry homes. In 2022 there were 18,483 Army Capehart-Wherry homes. With an average of 28 Capehart-Wherry homes demolished each year during the 20-year Program Comment period, the Army has removed 553 or 3% of deteriorated, excess, vacant, and unsafe Capehart-Wherry homes, meaning it has preserved 97% of its Capehart Wherry housing through reinvestment and continued improvement to maintain the housing as a viable asset for military families. The Program Comment for Army Capehart-Wherry housing states that Capehart-Wherry housing will be preserved through its continued use as housing, and it has been. With a 97% preservation rate over the past 20 years of implementation, the Program Comment for Army Capehart-Wherry housing demonstrates how the total inventory management capability including demolition provided by a Program Comment ensures the long-term preservation of modern historic Army housing.

The Army is also implementing a Program Comment for Army Inter-War Era housing (1919–1940) issued by the ACHP in 2020. The Program Comment for Army Inter-War Era housing authorized the programmatic use of modern industry standard building materials that have maintained the historic character of the housing, improved its climate resiliency, and have saved millions of dollars in the rehabilitation of Inter-War Era housing. The cost savings resulting from the use of modern industry standard building materials are reinvested to further preserve and improve the housing for military families. More information on these and other outcomes of the Program Comment for Army Inter-War Era housing may be found in the Annual Reports for 2021 and 2022 that are located at *https://denix.osd.mil/army-pchh/home/*.

The effectiveness of Program Comments in delivering consistent and positive preservation outcomes for modern historic Army housing is demonstrated by the ongoing implementation of the Program Comment for Army Capehart Wherry housing and the Program Comment for Army Inter-War Era housing. These Program Comments demonstrate that the best means to ensure long-term preservation of the Army's large inventory of modern historic housing is to sustain the housing as a viable mission-supporting real property asset through the holistic inventory management capabilities provided by Program Comments. The Program Comments for Army Capehart Wherry housing and Army Inter-War Era housing continue to deliver tangible historic preservation benefits and consistent outcomes, improve the quality of life, health, and safety of Army families residing in the housing, and create significant NHPA-related cost efficiencies and process improvements. Similar benefits, outcomes, improvements, and efficiencies are required for the Army's large inventory of Vietnam War Era housing.

2.0. Intent and Scope of the Program Comment

2.1. Intent of the Program Comment

This Program Comment is intended to provide the Army compliance with NHPA Section 106 for the management actions occurring on all privatized and non-privatized Army housing, associated buildings and structures, and landscape features constructed from 1963 through and including 1975. Management actions will be implemented under this Program Comment in lieu of conducting individual project reviews under 36 CFR 800.3–800.7, with an exception provided in section 5.2.4.3 regarding the

treatment of properties of particular importance.

This Program Comment acknowledges that among federal agencies, the Army faces a unique and significant NHPA Section 106 compliance challenge due to its large and growing inventory of historic housing.

This Program Comment addresses a category of undertakings termed management actions and recognizes that implementation of those management actions directly improves the material living conditions for thousands of military families living in Army Vietnam War Era housing while ensuring the housing is preserved as a real property asset.

This Program Comment prioritizes the quality of life, health, and safety of military families in harmony with the preservation of Army Vietnam War Era housing. It is focused on preservation of this modern historic housing while addressing the effects that the historic preservation process may have on the people who live in and manage the housing. The material living conditions, financial impacts, and wellbeing of people are in the forefront as prevailing concerns in the preservation of modern historic Army housing.

This Program Comment recognizes that intensifying climate risks require the use of modern resilient building materials and that the implementation of climate adaptation measures are needed to ensure Army Vietnam War Era housing remains a sustainable real property asset.

This Program Comment recognizes that standardized plans developed by civilian sector architects were used in the construction of Army Vietnam War Era housing and that similar designs, plans, building materials, and construction methods were used in the construction of over 20 million comparable homes built in the private sector during this same 13-year period.

This Program Comment recognizes that the Army's inventory of Vietnam War Era housing is eligible for the National Register of Historic Places (NRHP) under Criterion A, due to its association with the history of the Vietnam War. Army Vietnam War Era housing is not eligible for the NRHP under Criteria B, C, or D. The Army's Vietnam War Era housing has been extensively altered to the degree that the inventory overall lacks architectural integrity.

This Program Comment includes mitigation measures and recognizes that any adverse effects of management actions on Army Vietnam War Era housing are addressed and resolved through those mitigation measures.

This Program Comment ensures positive historic preservation outcomes resulting from its flexible, efficient, consistent, and cost-effective management process that preserves the continuity of historical use of Army Vietnam War Era housing.

This Program Comment is calibrated to the conditions, significance, and ubiquity of the Army Vietnam War era housing property type; is holistic in its scope and effect; and will provide long-term preservation by ensuring that the housing will be a mission-supporting real property asset into the future.

2.2. Scope of the Program Comment

The scope of this Program Comment includes and addresses all privatized and non-privatized Army housing constructed from 1963 through and including 1975. The Army's best available information indicates there are 7,843 Vietnam War Era homes on 18 Army installations in 13 states. The Army's current information on Vietnam War Era homes indicates the following locations and numbers of homes: Fort Hood, TX—2,032 Vietnam War Era homes; Fort Benning, GA—1,292; Fort Carson, CO—839; Fort Gordon, GA—740; Fort Meade, MD—675; Fort Bragg, NC—615; USAG-Hawaii, HI—555; Fort Campbell, KY—230; Fort Riley, KS—211; Fort Sill, OK—199; Fort Polk, LA—182; Fort Jackson, SC—119; Fort Leavenworth, KS—44; Fort Detrick, MD—40; Fort Stewart, GA—38; Redstone Arsenal, AL—18; Joint Base Lewis McChord (JBLM), WA—10; Aberdeen Proving Ground, MD—4. This information represents the best available Army Vietnam War Era housing inventory information as of the date of this Program Comment.

3.0. Description and Significance of Army Vietnam War Era Housing

The Army Vietnam War Era housing property type includes military housing constructed on Army installations during the period 1963–1975 to house the increased number of military personnel required to support the Vietnam conflict. This property type is comprised of residential buildings including ranch houses, duplexes, multiplexes, townhouses, and apartment buildings along with associated structures, such as carports and storage sheds, and landscape features concentrated in distinct neighborhoods within residential areas of Army installations. Reflecting expediently constructed and cost-effective examples of housing types popular in the civilian sector during this time, this military housing is characterized by a functional contemporary architectural character, minimal ornamentation, and high degree of standardization in design, materials, and construction. The Vietnam War Era homes in these military neighborhoods have collectively undergone significant modifications from active use over the years and no longer retain architectural design integrity. The property type does retain a significant historical association with the Vietnam War.

During the Vietnam War Era, the DoD looked to the civilian housing market and adopted popular Modern house designs from the civilian sector and applied those in constructing military housing. While the DoD sought to adopt modern design principles for Vietnam War Era housing, size limitations and cost criteria established by Congress for military family housing influenced the resulting housing stock in terms of architectural expression and interior design.

The US Army Corps of Engineers (USACE) managed the contracting and construction of Army family housing for the Department of the Army during the Vietnam War Era. Beginning in 1964, USACE used new standardized housing design plans developed for DoD by civilian architectural firms as a basis for Army housing construction contracts (DoD Design Folio, 1964). The standardized plans in the DoD Design Folio reflect housing designs that the architects were already using in the private sector. USACE hired local and regional architectural and engineering firms from the private sector to construct the Army family housing at each installation. Due to wartime financial constraints, the standardized design plans in the DoD Design Folio were subject to extensive site-specific design modifications, and the actual housing constructed was much more modest, stripped-down versions of the housing depicted in the DoD Design Folio.

Army homes from this period fall within the category of modern housing (see: A Field Guide to American Houses, Virginia Savage McAlester, 2017). Starting in 1964, townhouses began to be constructed by the Army in significant numbers. While townhouses and apartments became a predominate type of Army family housing constructed during the Vietnam War Era, single family homes, duplex homes, and apartment buildings also continued to be constructed following the same designs, building materials, and construction methods that were used in millions of homes constructed in the private sector during this period. The Army Vietnam War Era neighborhoods

used standard civilian sector designs and principles of residential planning and development. The townhouses were constructed for enlisted personnel up to and including junior officers (lieutenants and captains). Army townhouse developments applied and followed the existing trends in community planning and townhouse neighborhood design concepts from the civilian sector.

The Army's Vietnam War Era housing property type is historically significant under NRHP Criterion A based on its historical association with the Vietnam War. The Vietnam War was a major event in American history from the early 1960s through the mid-1970s. The heightened warfighting requirements and costs had direct implications for military activities at installations in the United States, including the Army family housing construction program. The Vietnam War had a significant fiscal impact on Army housing construction appropriations, influencing the types and numbers of housing built. The 1964 DoD Design Folio states that DoD objectives dictated the development of a family housing development plan that would provide reduced costs in siting, construction, and maintenance. A proposed solution included the townhouse design developments. Multi-story, row-unit townhouses, closely sited within large open areas was recognized as creating the required economies of scale. While ranch style single family and duplex housing designs for senior officers were included in the DoD Design Folio and continued to be constructed, townhouse and apartment construction on Army installations predominated during the Vietnam War Era. Army Vietnam War Era housing illustrates the historical progression of Army housing policy, the influence of wartime policies and their financial implications as reflected in the housing construction program.

Army Vietnam War Era housing is not significant under NRHP Criteria B, C, or D. Army Vietnam War Era is not associated with the productive lives of significant architects, military figures, or real estate developers from this period (Criterion B (Persons)). Regarding Criterion C (Design/Construction), this property type does not represent distinctive characteristics of type, period, and method of construction, does not represent the work of a master; possess high artistic value; or represent a significant and distinguishable entity whose components lack individual distinction. Standardized plans developed by civilian sector architects were used in the construction of Army Vietnam War Era housing, and the same plans, designs, building materials, and construction methods were used in the construction of 20.4 million comparable homes in the private sector during this period (*https://www.census.gov/construction/nrc/index.html*). Additionally, the Army's inventory of Vietnam War Era housing has had extensive physical modifications impacting its architectural design integrity including extensive replacement of original interior and exterior building elements and original building materials. Army Vietnam War Era housing overall lacks architectural design integrity due to substantial physical modifications that have occurred and does not convey significance under Criterion C. Regarding Criterion D (Information Potential), the housing inventory is not likely to yield important information since it does not represent the principal source of information on design or construction of housing from this period.

The Army's public website for the Program Comment contains extensive information on the history, architecture, and the NRHP significance of Army Vietnam War Era housing, see *https://www.denix.osd.mil/army-vwehh-pc.* Army-wide historic context reports, historic documents, installation level inventory, evaluation, and documentation of the housing are located on the website.

4.0. Category of Undertaking and Assessment of Effect

4.1. Category of Undertaking

The category of undertaking addressed by this Program Comment is management actions. Management actions are defined as maintenance, repair, rehabilitation, renovation, abatement of hazardous materials, mothballing, cessation of maintenance, demolition, new construction, lease, transfer, conveyance, and the use of modern industry standard building materials and methods in the implementation of management actions.

This category of undertakings is defined based on both the Army's Vietnam War Era housing management needs and on two previous Program Comments for modern historic Army housing. The definition of management actions as the category of undertaking for Army Vietnam War Era housing follows the definition of management actions established in the Program Comment for Army Capehart-Wherry housing and the Program Comment for Army Inter-War Era housing.

4.2. Assessment of Effect

The Army's management actions will have an adverse effect on Army Vietnam War Era housing. An adverse effect occurs when an action may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The characteristic that qualifies Army Vietnam War Era housing for inclusion in the NRHP is its historical association with the Vietnam War under NRHP Criterion A.

The Army's mitigation measures focus on addressing the adverse effects of management actions on the housing's historical association with the Vietnam War and include professional research and public education regarding the history of the housing within the historic context of the Vietnam War; inventory and documentation regarding the housing's location, design, setting, materials, workmanship, and feeling; the identification and treatment of properties of particular importance; and the development and implementation of Neighborhood Design Guidelines among other measures. The mitigation measures ensure that any adverse effects of management actions are taken into account in consideration of the NRHP significance of the Army Vietnam War Era housing property type.

5.0. Mitigation Measures

NHPA Section 106 mitigation measures address and resolve the adverse effects of undertakings on historic properties and the qualities that make the properties historically significant. Since the Army's inventory of Vietnam War Era housing is significant based on its historical association with the Vietnam War, the mitigation measures for Army Vietnam War Era housing are properly focused on mitigating adverse effects to the significance of Army Vietnam War Era housing under NRHP Criterion A.

5.1 Prior Mitigation Measures

The Army has existing documentation on the history and historic context of Vietnam War Era housing, installation-specific inventory and evaluation reports of Vietnam War Era housing recording its design and architectural style, interior designs and floorplans, factors influencing design variations, and its associated buildings and structures, and landscape features. This existing set of prior Army documentation serves as a Program

Comment mitigation measure since it provides comprehensive documentation and recordation of Vietnam War Era housing, associated buildings and structures, and landscape features. The existing documentation for Army Vietnam War Era housing is consolidated on the Army's Vietnam War Era Housing website *https://www.denix.osd.mil/army-vwehh-pc.*

The prior documentation includes the overarching DoD-wide historic context Vietnam and the Home Front: How DoD Installations Adapted, 1962–1975, June 2014; the Department of Defense Housing Design Folio, 1964; Fort Gordon Cold War Architectural Survey, April 2005; Architectural Survey Conelly Duplex Units, Hawthorne Army Depot, NV, September 2014; and Architectural Inventory and Evaluation of 1970s-Era Family Housing at U.S. Army Garrison Fort Carson, CO, August 2019.

5.2. Additional Mitigation Measures

Unless otherwise specified, all additional mitigation measures in this section will be completed in three calendar years from the date of ACHP **Federal Register** notice of issuance of the Program Comment. Documents resulting from these mitigation measures will as appropriate, be made available to the public by means of the Army's Vietnam War Era housing website at *https://www.denix.osd.mil/army-vwehh-pc,* following security review and clearance.

5.2.1. Public Education on the History of Army Vietnam War Era Housing

The Army will maintain a public website containing information about the history of the Army Vietnam War Era housing for public educational purposes. The Army will provide relevant public documentation regarding Vietnam War Era housing and make that information available via the website, thereby providing the public a single and readily accessible source of information on the history of this housing. The Army will also use social media to distribute information on Vietnam War Era historic housing and other Army historic preservation information.

5.2.2. Historic Context Research for Army Vietnam War Era Housing

New scholarly information on the history of Vietnam War Era housing through in-depth professional research and presentation of additional Army Vietnam War Era housing historic context information was developed by the Army for this Program Comment. The Army conducted archival research and assessed historical information relevant to the nation-wide historic context of the housing, address the history and characteristics of the military construction program for Vietnam War Era housing, and other important aspects pertaining to the history of Army Vietnam War Era housing in the context of the Vietnam War. The two-volume historic context documentation is published on the Army's Vietnam War Era Housing public website *https://www.denix.osd.mil/army-vwehh-pc.*

5.2.3. Army-Wide Vietnam War Era Housing Inventory and Evaluation

An Army-wide inventory and evaluation of Vietnam War Era housing was developed by the Army for this Program Comment. This includes the inventory of representative Vietnam War Era housing architectural styles, associated buildings and structures, and landscape features, and information and evaluation of the housing's location, design, setting, materials, workmanship, and feeling, provide information. The report also provides the identification and evaluation of properties of particular importance. The documentation is published on the Army's Vietnam War Era Housing public website *https://www.denix.osd.mil/army-vwehh-pc* as part of the two-volume historic context document.

5.2.4. Designation, Recordation, Documentation, and Treatment of Properties of Particular Importance

5.2.4.1. Designation of Properties of Particular Importance

Army Vietnam War era housing properties of particular importance are defined as: Army Vietnam War era housing that retains a high degree of integrity, represents particularly important historical aspects of the Army Vietnam War Era housing program, and that represent particularly important building types or methods of construction. To be considered properties of particular importance Army Vietnam War Era housing must retain original location, scale, mass, proportion, materials, and ornamentation from the period of construction.

A total of 555 Army Vietnam War era homes equivalent to 7.1% of the total Army inventory of 7,843 Vietnam War era homes are designated as properties of particular importance. The 555 Army Vietnam War era homes designated as properties of particular importance are in the Akolea, Aloala, and Ralston neighborhoods, at Schofield Barracks, Hawaii (HI).

Unlike all other Army installations with Vietnam War era housing, the housing in these three neighborhoods at Schofield Barracks has had minimal exterior modifications in terms of materials, additions, and new construction. This housing not undergone the significant redesign and extensive replacement of original building materials and ornamentation that has occurred throughout the rest of the Army inventory of Vietnam War Era housing. The original building designs and building materials such as jalousie windows and concrete block and wood board-and-batten siding are original, roof modifications are minimal. Interior modifications are also minimal to maintain the livability of the units and consist of replacement finishes, fixtures, and appliances. In select cases, some housing units were combined, and those original interior floor plans were modified.

Despite some minimal modifications over time, Army Vietnam War era housing in the Akolea, Aloala, and Ralston neighborhoods retains sufficient integrity of association, feeling, location, and setting to convey their historical association with the Vietnam War. The buildings retain a high degree of integrity of design, materials, and workmanship. The housing is however not distinctive or distinguishable in its design and construction relative to the national inventory of housing from this period. Additionally, research has not identified any association with persons important in the past, and the housing is unlikely to yield information important to history because it is not the principal source of information representing housing constructed during the Vietnam War Era.

The inventory conducted at Schofield Barracks confirmed that the military followed civilian-sector housing trends and did not construct housing that was unique or distinctive from the 20 million civilian sector homes constructed in the US during this period. Through the retention of original building materials and design, the housing in the Aloala, Akolea, and Ralston neighborhoods maintains the domestic design principles popularized during the period. The Vietnam War Era housing in the Aloala, Akolea, and Ralston neighborhoods retains original location, scale, mass, proportion, materials, and ornamentation from the period of construction. The neighborhood designs are cohesive and visually convey original suburban residential design from the Vietnam War Era. Therefore, the 555 Army Vietnam

War era homes located in the Akolea, Aloala, and Ralston neighborhoods at Schofield Barracks, HI meet the definition of properties of particular importance and are so designated.

5.2.4.2. Recordation and Documentation of Properties of Particular Importance

The Army has recorded and documented the designated properties of particular importance. The recordation and documentation include site-specific archival research of primary and secondary source materials and review of previous studies to develop a specific history and statement of significance for the designated properties of particular importance at Scofield Barracks. Research includes a review of drawings, historic photographs, and written documents, as available. Fieldwork investigations documented the current appearance of the buildings with digital images of individual building types including elevations and exterior details of the housing. The digital photographs follow National Park Service digital photography standards and show the respective housing in context. The documentation of the designated properties of particular importance is published on the Army's Vietnam War Era Housing website *https://www.denix.osd.mil/army-vwehh-pc/* in the two-volume historic context document. The ''Historic Context for Army Vietnam War Era Historic Housing, Associated Structures, and Landscape Features (1963–1975) Volumes 1 and 2'' are hereby designated as an Appendix to this Program Comment, see section 10.0.

5.2.4.3. Treatment of Properties of Particular Importance

Inventory management requirements for Army Vietnam War Era housing may necessitate the cessation of maintenance and demolition of properties of particular importance designated in section 5.2.4.1. The Army will follow the consultation process in 36 CFR 800.6–800.7 to address adverse effects when designated Vietnam War Era housing properties of particular importance are proposed for cessation of maintenance and demolition. Memoranda of Agreement (MOAs) or Programmatic Agreements (PAs) prepared in accordance with 36 CFR 800 to resolve the adverse effects of cessation of maintenance and demolition on the designated properties of particular importance are subject to the following requirements of this Program Comment: (a) properties of particular importance have been identified, evaluated, and designated under this Program Comment and no further actions under 36 CFR 800 or any MOA or PA shall be stipulated or required to identify, evaluate, or designate additional Army Vietnam War Era housing properties of particular importance and, (b) the documentation of properties of particular importance prepared in section 5.2.4.2 will be incorporated as a mitigation measure in any MOA or PA prepared to address cessation of maintenance and demolition of Army Vietnam War Era housing properties of particular importance. The procedures in this section for treatment of properties of particular importance apply over the duration of this Program Comment.

5.2.5. Neighborhood Design Guidelines

The Army will: (i) Prepare Army Vietnam War Era Housing Neighborhood Design Guidelines in coordination with the ACHP within one year of issuance of this Program Comment, (ii) Use a qualified professional and the information in the historic context study referenced in section 5.2.2 to prepare the Neighborhood Design Guidelines, (iii) Address the design and setting of Vietnam War Era neighborhoods and landscape features in the Neighborhood Design Guidelines, (iv) Ensure the Neighborhood Design Guidelines are available to those installations with Vietnam War Era housing, and (v) Implement the Neighborhood Design Guidelines to the maximum extent practicable in planning management actions that affect the overall design of Vietnam War Era neighborhoods.

5.2.6 Historic Preservation Tax Credits

The Army FPO will advise its Residential Communities Initiative (RCI) privatized housing partners that Vietnam War Era housing may be eligible for Federal and State historic preservation tax credits upon ACHP issuance of this Program Comment. The Army FPO will provide supplemental tax credit information on request from RCI housing partners including offices and website locations that provide information on applicable tax credits.

5.2.7. Annual Report

On or before January 31st of each reporting year, the Army will provide an Annual Report on the Program Comment to the ACHP for the preceding year. The Annual Report will provide the status of the Army's implementation of the mitigation measures. The Annual Report will include a summary of final Army decisions made during the reporting year for demolition of Vietnam War era housing. The Annual Report will identify significant issues that may have arisen while implementing the Program Comment, how those were addressed, and how they may be avoided in the future. The Annual Report will include an assessment of the overall effectiveness of the Program Comment in meeting its intent.

5.2.8. Annual Meeting

After its submission of the Annual Report and upon the ACHP's request, the Army will schedule a meeting with the ACHP, and invite the National Conference of State Historic Preservation Officers (NCSHPO), the National Association of Tribal Historic Preservation Officers (NATHPO), the National Trust for Historic Preservation (NTHP), and any other ACHP identified invitees to discuss implementation of the Program Comment. Prior to the Annual Meeting, the Army will provide an Annual Report on the Vietnam War Era Housing Program Comment to the meeting invitees relating the status of completion of the mitigation measures in section 5.2. The Annual Meeting provides an opportunity for attendees to provide their views on the overall effectiveness of the Program Comment in meeting its intent and purpose. The Army will document the occurrence of the meeting and participants, and its response to recommendations made by the ACHP. Annual Meetings may take place in-person, by phone, by videoconference, or any combination of such methods.

6.0. Applicability of the Program Comment

This Program Comment applies to all Army Vietnam War Era housing, associated buildings and structures, landscapes and landscape features, and neighborhoods built from 1963 through and including 1975. Over 99% of Army's Vietnam War Era housing is privatized housing operated under the Army's RCI program. The Program Comment applies to all Army Vietnam War Era housing, both privatized and non-privatized.

The Program Comment does not apply when a management action may cause physical damage, destruction, or change the physical features of other historic properties including properties of traditional religious and cultural importance to Federally recognized Indian tribes or NHOs; human remains, funerary objects, sacred objects, and cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (NAGPRA).

The Army reviewed its National Historic Landmarks (NHL) documentation to confirm there are no

Army Vietnam War Era housing designated as individual NHLs or as contributing properties to any NHL district. There are no known Army Vietnam War Era historic housing, associated buildings and structures, and landscape features that are NHLs, or that qualify for NHL designation.

7.0. Implementation of the Program Comment

7.1. Effect of the Program Comment

The Program Comment for Army Vietnam War Era housing includes all privatized and non-privatized Army housing constructed from 1963–1975. By adhering to the terms of the Program Comment, the Army meets its responsibilities for compliance with Section 106 of the NHPA for management actions effecting Army Vietnam War Era housing.

The Army will implement the management actions under the Program Comment in lieu of conducting any individual project reviews under 36 CFR 800.3–800.7 for Army Vietnam War Era housing. One exception is under section 5.2.4.3 whereby the Army will follow the resolution of adverse effect process in 36 CFR 800.6–800.7 and resulting PAs or MOAs when Vietnam War Era housing properties of particular importance designated in section 5.2.4.1 are subject to cessation of maintenance and demolition.

This Program Comment supersedes and replaces any requirements for Army Vietnam War Era housing in all preceding Section 106 PAs, MOAs, or Army Alternate Procedures. The Army will implement the Program Comment in lieu of all PA, MOA, Army Alternate Procedure requirements and procedures previously applicable to Army Vietnam War Era housing. PAs, MOAs, or Army Alternate Procedures prepared after ACHP issuance of this Program Comment will identify this Program Comment and indicate that the Program Comment meets all Army responsibilities for compliance with Section 106 of the NHPA for management actions associated with Army Vietnam War Era housing. PAs, MOAs, Army Alternate Procedures, any other agreements, procedures, plans, standards, or guidelines shall not in any way modify, effect, or alter the terms of this Program Comment. The terms of this Program Comment may only be modified through amendments made in accordance with Section 9.0 of this Program Comment.

The Army will implement the Program Comment in lieu of any procedures, development agreements, lease and conveyance documents, environmental management plans, guidelines, reporting requirements, Integrated Cultural Resources Management Plans, and all other documents, standards, procedures, or guidelines pertaining to the historic preservation of Vietnam War Era housing.

The Army will ensure that RCI housing privatization entities to which it leases or otherwise coveys Vietnam War Era housing for the purposes of possession, management, and operation as housing and associated ancillary purposes follow this Program Comment for all management actions associated with these properties. This provision also applies to the reversion of leased or otherwise conveyed Vietnam War Era housing from a management entity back to the Army, whereby the Army will follow this Program Comment for all management actions associated with these properties.

7.2. Duration of the Program Comment

The Program Comment will remain in effect from the date of issuance by the ACHP through December 31, 2055. This duration serves to integrate NHPA compliance with the ongoing real property management requirements in place for privatized Army housing. The duration of the Program Comment synchronizes with the term of the ground leases that have been executed with the Army's privatized housing partners under the RCI program. Upon termination of Army RCI program ground leases, ownership of all RCI partnership owned improvements including all housing that is located within the boundaries of the ground lease is conveyed back to the Army.

The Program Comment will remain in effect from the date of ACHP issuance through December 31, 2055, unless prior to that time the Army determines that such comments are no longer needed and notifies the ACHP in writing, or the ACHP withdraws the Program Comment in accordance with 36 CFR 800.14(e)(6), or the ACHP amends the Program Comment to change its duration per Section 9.0. Following withdrawal or expiration of this Program Comment, the Army will be required to comply with Section 106 through the process in 36 CFR 800.3–800.7, or an applicable program alternative under 36 CFR 800.14, for each individual undertaking formerly covered by this Program Comment.

7.3. Further Historic Property Identification and Evaluation

The Army's Vietnam War Era housing has been extensively identified, evaluated, and documented by existing information and by information developed under section 5.0. of this Program Comment. The Army will not implement any further historic property identification, evaluation, and mitigation efforts in connection with the management actions covered by the Program Comment other than those efforts specified as additional mitigation measures in Section 5.2 of this Program Comment.

Army Vietnam War Era housing areas are the equivalent of suburban tract housing developments in the private sector. As such, there is significant prior ground disturbance in Vietnam War Era housing areas and neighborhoods resulting from the original construction of the housing including overall grading of the entire housing development area, housing construction, construction of associated buildings and structures, road and sidewalk construction, installation of above and below ground utilities, landscaping, construction of recreational structures, and subsequent ground disturbing actions that have occurred after the original construction. Such areas of extensive ground disturbance associated with housing tract developments are considered to have a low probability for the presence of NRHP eligible archeological properties. Therefore, no further efforts to identify or evaluate archeological properties in Vietnam War Era housing areas and neighborhoods are required for the implementation of Program Comment management actions other than those actions identified in section 8.0.

8.0 Treatment of Archeological Properties and Human Remains

Army installation NHPA agency officials including installation commanders, garrison commanders, or their designees, and installation cultural resource managers shall ensure that RCI partners, contractors, and installation staff involved in implementing management actions in Vietnam War Era housing neighborhoods are provided information regarding any known undistributed areas within those neighborhoods; the presence of known archeological properties, Native American or Native Hawaiian human remains, funerary objects, sacred objects, and cultural patrimony within those neighborhoods; and the installation's procedures in the event of discovery of or effects to archeological properties, human remains, and cultural items. RCI partners, contractors, installation staff, and others involved in implementing management actions in Vietnam War Era housing neighborhoods will exercise caution in

known undistributed areas; will seek to avoid impacts to known archeological properties, Native American or Native Hawaiian human remains and cultural items whenever possible; and will follow the procedures in 8.1 and 8.2 if such archeological properties, human remains, or cultural items may be affected by or are discovered during the implementation of management actions.

8.1. Archeological Properties and Human Remains of Non-Native American and Non-Native Hawaiian Origin

If a previously known NRHP eligible archeological property will be adversely affected by a Program Comment management action, mitigation measures to resolve the adverse effect to that archeological property will be developed following the procedures in 36 CFR 800.3–800.7, or by following the archeological property mitigation procedures in an applicable installation NHPA PA, MOA, or Army Alternate Procedures, as appropriate. The discovery of a NRHP eligible archeological property or human remains of non-Native American and non-Native Hawaiian origin during the implementation of management actions for Vietnam War Era housing will be addressed following the procedures in 36 CFR 800.13 regarding post review discoveries, or by following the archeological property discovery procedures in an applicable installation NHPA PA, MOA, or Army Alternate Procedures, as appropriate. Archeological properties associated with the Vietnam War Era (1963–1975) located in Army Vietnam War Era neighborhoods are addressed under this Program Comment as landscape features.

8.2. Native American and Native Hawaiian Human Remains, Funerary Objects, Sacred Objects, and Cultural Patrimony

The Army acknowledges that the respectful treatment of Native American and Native Hawaiian human remains are a paramount concern and that an appropriate treatment is to protect and preserve Native American or Native Hawaiian human remains in situ, wherever possible. If Native American or Native Hawaiian human remains, funerary objects, sacred objects, and cultural patrimony may be affected by or are discovered during the implementation of management actions under this Program Comment, the Army installation agency official will implement the appropriate statutory provisions of NAGPRA and the regulatory compliance procedures in 43 CFR 10, a NAGPRA Comprehensive Agreement, or a NAGPRA Plan of Action, as appropriate.

9.0. Program Comment Amendment and Withdrawal

The ACHP may formally amend this Program Comment after consulting with the Army and other parties as it deems appropriate.

9.1. Amendment by Chairman, ACHP

The Chairman of the ACHP, after notice to the rest of the ACHP membership and the Army may amend this Program Comment to extend its duration. The ACHP will notify the Army and will publish notice in the **Federal Register** regarding such amendment within 30 days after their issuance.

9.2. Amendment by Executive Director, ACHP

The Executive Director of the ACHP, after notice to the ACHP membership and the Army may amend this Program Comment to adjust due dates and make corrections of grammatical and typographical errors. The ACHP will notify the Army and will publish notice in the **Federal Register** regarding such amendments within 30 days after their issuance.

9.3. Withdrawal of the Program Comment

If the ACHP determines that consideration of Army Vietnam War Era housing is not being carried out in a manner consistent with this Program Comment, the ACHP may withdraw the Program Comment. The Chairman will notify the Army and will publish notice in the **Federal Register** regarding withdrawal of the Program Comment within 30 days of the decision to withdraw. If this Program Comment is so withdrawn, the Army shall comply with the requirements of 36 CFR 800.3–800.7, or an applicable program alternative, for individual undertakings effecting Army Vietnam War Era housing.

10.0 Appendix

Appendix—Historic Context for Army Vietnam War Era Historic Housing, Associated Structures, and Landscape Features (1963–1975), Volume 1 and Volume 2. [see *https://www.denix.osd.mil/army-vwehh-pc/*].

11.0 Definitions

The following definitions apply to and are implemented by this Program Comment:

Abatement means actions to eliminate, lessen, reduce, or remove hazardous and toxic materials, and unsafe conditions.

Army Vietnam War Era historic housing includes all privatized and non-privatized housing, with construction started or completed during the period 1963–1975, that is located on an Army installation or joint base and owned, operated, and or managed by the Army or by an Army privatized housing partner including those operating under the RCI program. The terms housing, Army Vietnam War Era housing, and Vietnam War Era housing are used interchangeably in the Program Comment and mean all Army Vietnam War Era historic housing, associated buildings and structures, landscapes and landscape features, and neighborhoods.

Army Vietnam War Era housing property type means Army Vietnam War Era housing, associated buildings and structures, landscapes and landscape features, and Vietnam War Era neighborhoods.

Army Vietnam War Era neighborhood means a geographical area, district, development, community, subdivision, or locality on an installation that is characterized by and comprised predominantly of Army Vietnam War Era housing, associated buildings and structures, and landscapes and landscape features.

Associated buildings and structures includes detached garages, carports, storage buildings, above and below ground utilities and service systems including water, sewage, storm water, gas, and electrical service systems, tennis courts, pools, buildings and structures associated with recreational and athletic activities, playgrounds and playground equipment, all other recreational buildings and structures, fencing, community centers, shelters, associated ancillary facilities that support housing, and any and all other buildings, structures, and objects associated Army Vietnam War Era housing with or located within Army Vietnam War Era housing neighborhoods.

Cease or cessation of maintenance means an action to permanently halt maintenance and repair of housing and/or associated buildings and structures and landscape features when the property is no longer in a mission supporting operational status; resources are and will remain unavailable to maintain, mothball, or demolish the property; and there is no foreseeable alternative use or intent to bring the property back to operational status at a future time.

Current industry standard building materials and methods means modern

industry standard building materials, methods and techniques that are currently in use in the construction industry today. It includes natural, composite, and synthetic building materials; and the designs, types, techniques, materials, equipment, temporary structures, and suitable methods to accomplish construction.

Demolition and demolish means complete dismantling and/or destruction of Army Vietnam War Era housing in its entirety, or partial demolition to remove exterior portions of the housing when the housing is found to be either deteriorated, excess to needs, vacant, presents health and safety hazards, or when replacement with new housing is necessary to improve the quality of life of military families.

Deteriorated means Army Vietnam War Era housing that is significantly impaired as to affect the habitability of the housing or the quality of life of military family occupants.

Excess to needs means housing present on an installation that is excess to current and foreseeable future needs as indicated by Army housing market surveys and housing requirements analyses.

Health and safety hazards means housing that has any of the following conditions: significantly damaged roofs or walls; non-functional mechanical systems; unsafe common areas such as stairs; significant rodent, insect, or mold infestations; lead based paint exposure risks; asbestos exposure risks; risk of exposure to other chemical or environmental hazards; violations of health and safety codes and standards; damages due to fire, flooding, or natural disasters; or other conditions that make the housing unsafe, present health hazards, or cause the housing to be uninhabitable.

Historic property means buildings, sites, structures, objects, and districts that are eligible for inclusion or that are included in the NRHP.

Landscape features and landscapes includes the overall design and layout of the Vietnam War Era housing neighborhoods and communities including roadway circulation systems and patterns, plantings and landscaping, open spaces, playgrounds, recreational landscape features including but not limited to recreational and athletic fields, golf courses, fencing, parking areas, signage, site furnishings, parade grounds, lighting, sidewalks and curbing, driveways, setbacks, all visual elements and viewsheds into Vietnam War Era historic properties and neighborhoods and out from Vietnam War Era historic properties and neighborhoods into other historic properties and districts, any and all other landscape features present in Vietnam War Era housing and neighborhoods, and any archeological properties associated with the Vietnam War Era (1963–1975). The term landscape features as used throughout the Program Comment is inclusive of all Vietnam War Era landscapes and landscape features.

Lease, transfer, and conveyance means the execution of lease, transfer, and conveyance documents for the purposes of lease, possession, management, operation, and transfer of Vietnam War Era housing. Includes execution of transfers and conveyances of ground leases and property ownership between RCI partners, between RCI partners and the Army; and actions to transfer or convey Vietnam War Era housing by sale or other means out of Federal governmental ownership and control and/or out of RCI partner ownership and control to any other public or private entities.

Maintenance and repair means activities required to maintain the interior and exterior of housing, mechanical systems, and all interior and exterior building features, elements, and materials in an operational state, or to bring them back to operating condition by repair or replacement of obsolete, broken, damaged, or deteriorated mechanical systems, features, elements, and materials on housing interiors or exteriors.

Management actions means maintenance, repair, rehabilitation, renovation, abatement of hazardous materials, mothballing, cessation of maintenance, demolition, new construction, lease, transfer, conveyance, and the use of current readily available industry standard building materials and methods in the implementation of management actions.

Mechanical systems means heating, ventilation, air conditioning, plumbing, and electrical systems, and the individual elements and components of each system.

Mitigation measures means any existing, new, or updated materials or actions that serve to address, reduce, minimize, or otherwise mitigate adverse effects on historic properties, and may include research reports, historical documentation, recordation, and other materials and activities.

Mothballing means an action to close and deactivate housing and/or associated buildings and structures for an extended period, with the intent that the property would be brought back to a mission supporting operational status at some future time.

New construction or new housing construction means the use of current industry standard building materials and methods for construction of new housing, associated buildings and structures, and landscape features within existing Vietnam War Era housing neighborhoods. New housing construction usually occurs when there is a housing deficit determined through local housing market surveys and installation housing requirements analyses. New housing construction may include single family homes, duplexes, multiplexes, townhouses, apartments, and associated buildings, structures, and landscape features. New construction is restricted to the boundaries of existing Vietnam War Era housing neighborhoods due to significant prior ground disturbance in these neighborhoods. Army Vietnam War Era housing developments, like suburban tract housing developments in the civilian sector, are considered to have a low probability for the presence of NRHP eligible archeological properties due to a high degree of prior ground disturbance from housing and housing-related infrastructure construction. Prior ground disturbance in Army Vietnam War era neighborhoods is due to the original neighborhood construction including overall grading of the entire neighborhood development area, construction of the Vietnam War era housing itself, construction of associated buildings and structures, road and sidewalk construction, installation of above and below ground utilities, landscaping, construction of recreational areas and structures, and subsequent ground disturbing actions that have occurred after the original construction. Appropriate NHPA and NAGPRA procedures will be followed in accordance with section 8.0 of this Program Comment in the event of effects to or discovery of Native American or Native Hawaiian human remains or cultural items, or an NRHP eligible archeological property or human remains of non-Native American and non-Native Hawaiian origin.

Original historic building materials and historic building materials means the building materials that were used in the initial construction of Vietnam War Era housing.

Privatized housing means Army housing that has been privatized under the Army's Residential Communities Initiative (RCI). The RCI operates on Army installations through the operation of legal partnerships between the Army and private sector developers.

At each installation where RCI housing is located, the Army conveys ownership of existing housing and leases land to the RCI partnership. The RCI partnership then operates and manages the conveyed housing and leased lands for military housing purposes.

Properties of particular importance means Army Vietnam War Era housing that retains a high degree of integrity, represents particularly important historical aspects of the Army Vietnam War Era housing program, and that represent particularly important building types or methods of construction. To be considered properties of particular importance Army Vietnam War Era housing must retain original location, scale, mass, proportion, materials, and ornamentation from the period of construction.

Public educational materials mean Vietnam War Era housing historic contexts, reports, and other documentation containing public information on the history of Vietnam War Era housing.

Quality of life means the general wellbeing and material living conditions of individuals and military families living in historic housing.

Rehabilitation means repairs, additions, and other alterations and modifications to a building that preserve, to the greatest extent possible, historic building materials, historic building design, and other historic building features in accordance with Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR 68).

Renovation means improvements to housing using current industry standard building materials and methods and including any interior and exterior alterations and modifications; exterior additions that increase square footage of housing; interior floor plan changes; actions to improve energy efficiency and climate resiliency; removal and replacement of out of date, obsolete, damaged, deteriorated, or defective interior and exterior building materials and elements including windows and doors; removal and replacement of interior walls, ceilings, and flooring; removal and replacement of mechanical systems or elements thereof; and other alterations and modifications that modernize housing to improve the quality of life of residents.

To the maximum extent practicable means to implement to the extent feasible or capable of being considered or carried out with reasonable effort taking into account considerations regarding the financial implications for housing improvements and new construction and the benefits those and other management actions have in terms of improving the quality of life, health, safety of military families.

Undisturbed area(s) means a definable area within an Army Vietnam War Era neighborhood that has not been altered from its natural condition by human activities. Undisturbed areas must retain the natural topography and natural soil horizons existing before any human-caused influences or changes. Undisturbed areas must have not been affected to any degree by grading, filling, removal of trees or vegetation, prior excavation or construction, or any other human-caused influences or activities.

Vacant means housing that has been unoccupied for six months or longer and is expected to remain unoccupied into the foreseeable future.

Viewshed includes all the area visible from a particular location, viewing point, or series of viewing points. It includes all visual elements and surrounding points that are in the line of sight from any location, viewing point, or series of viewing points and excludes all points and locations that are not visible and/or are obstructed by terrain, other natural features, man-made features, and points beyond the horizon.

(End of Document)

Authority: 36 CFR 800.14(e).

Dated: April 28, 2023.

Javier Marqués,

General Counsel.

[FR Doc. 2023–09418 Filed 5–3–23; 8:45 am]

BILLING CODE 4310–K6–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Immigration and Customs Enforcement

[Docket No. ICEB–2023–0001]

RIN 1653–ZA37

Employment Authorization for Hong Kong F–1 Nonimmigrant Students Experiencing Severe Economic Hardship as a Direct Result of the Current Crisis in Hong Kong

AGENCY: U.S. Immigration and Customs Enforcement; Department of Homeland Security.

ACTION: Notice.

SUMMARY: This notice announces that the Secretary of Homeland Security (Secretary) is suspending certain regulatory requirements for F–1 nonimmigrant students who are Hong Kong residents, regardless of country of birth, and who are experiencing severe economic hardship as a direct result of the current crisis in Hong Kong. The Secretary is taking action to provide relief to those Hong Kong residents who were in lawful F–1 nonimmigrant student status as of January 26, 2023, so the students may request employment authorization, work an increased number of hours while school is in session, and reduce their course load while continuing to maintain their F–1 nonimmigrant student status. DHS will deem an F–1 nonimmigrant student who receives employment authorization by means of this notice to be engaged in a ''full course of study'' for the duration of the employment authorization, if the nonimmigrant student satisfies the minimum course load requirement described in this notice.

DATES: This action is effective from January 26, 2023, through February 5, 2025.

FOR FURTHER INFORMATION CONTACT: Sharon Snyder, Unit Chief, Policy and Response Unit, Student and Exchange Visitor Program, MS 5600, U.S. Immigration and Customs Enforcement, 500 12th Street SW, Washington, DC 20536–5600; email: *sevp@ice.dhs.gov,* telephone: (703) 603–3400. This is not a toll-free number. Program information can be found at *https://www.ice.gov/sevis/.*

SUPPLEMENTARY INFORMATION:

What action is DHS taking under this notice?

The Secretary is exercising the authority under 8 CFR 214.2(f)(9) to temporarily suspend the applicability of certain requirements governing on-campus and off-campus employment for F–1 nonimmigrant students who are residents of Hong Kong,[1] regardless of country of birth, who were lawfully present in the United States in F–1 nonimmigrant student status as of January 26, 2023, and who are experiencing severe economic hardship as a direct result of the current crisis in Hong Kong. The original notice, which applied to F–1 nonimmigrant students who met certain criteria, including having been lawfully present in the United States in F–1 nonimmigrant status on November 26, 2021, became effective from November 26, 2021,

[1] For purposes of this Notice, a Hong Kong resident is defined as an individual of any nationality, or without nationality, who has met the requirements for, and been granted, a Hong Kong Special Administrative Region Passport, a British National Overseas Passport, a British Overseas Citizen Passport, a Hong Kong Permanent Identity card, or a Hong Kong Special Administrative Region (HKSAR) Document of Identity for Visa Purposes.

through February 5, 2023. *See* 86 FR 67485 (November 26, 2021). Effective with this publication, suspension of the employment limitations is available through February 5, 2025, for those who were in lawful F–1 nonimmigrant status as of January 26, 2023, the date of the Presidential Memorandum extending and expanding protections for eligible Hong Kong residents. DHS will deem an F–1 nonimmigrant student granted employment authorization through this notice to be engaged in a ''full course of study'' for the duration of the employment authorization, if the student satisfies the minimum course load set forth in this notice.[2] *See* 8 CFR 214.2(f)(6)(i)(F).

Who is covered by this notice?

This notice applies exclusively to F–1 nonimmigrant students who meet all of the following conditions:

(1) Are Hong Kong residents, regardless of country of birth;

(2) Were lawfully present in the United States in F–1 nonimmigrant status on January 26, 2023, under section 101(a)(15)(F)(i) of the Immigration and Nationality Act (INA), 8 U.S.C. 1101(a)(15)(F)(i);

(3) Are enrolled in an academic institution that is Student and Exchange Visitor Program (SEVP)-certified for enrollment for F–1 nonimmigrant students;

(4) Are currently maintaining F–1 nonimmigrant status; and

(5) Are experiencing severe economic hardship as a direct result of the current crisis in Hong Kong.

This notice applies to F–1 nonimmigrant students in an approved private school in kindergarten through grade 12, public school grades 9 through 12, and undergraduate and graduate education. An F–1 nonimmigrant student covered by this notice who transfers to another SEVP-certified academic institution remains eligible for the relief provided by means of this notice.

Why is DHS taking this action?

On January 26, 2023, President Biden issued a memorandum to the Secretary of State and the Secretary of DHS to defer for 24 months the removal of certain Hong Kong residents present in the United States.[3] There continue to be compelling foreign policy reasons to grant Deferred Enforced Departure (DED), including the defense of democracy and the promotion of human rights in Hong Kong.

By unilaterally imposing on Hong Kong the Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region (NSL) in June 2020, the PRC has undermined the enjoyment of rights and freedoms in Hong Kong, including those protected under the Basic Law and the Sino-British Joint Declaration. The PRC has continued its assault on Hong Kong's autonomy, undermining its remaining democratic processes and institutions, imposing limits on academic freedom, and cracking down on freedom of expression, including for members of the press. Since June 2020, at least 150 opposition politicians, activists, and protesters have been taken into custody on politically motivated NSL-related charges including secession, subversion, terrorist activities, and collusion with a foreign country or external elements. Over 1,200 political prisoners are now behind bars, and over 10,000 individuals have been arrested for other charges in connection with anti-government protests.[4] Now, DHS is again taking action so eligible F–1 nonimmigrant students who are Hong Kong residents, regardless of country of birth, may request employment authorization, work an increased number of hours while school is in session, and reduce their course load while continuing to maintain F–1 nonimmigrant student status.

Previously DHS took action to provide temporary relief to F–1 nonimmigrant students who are Hong Kong residents, regardless of country of birth, and who experienced severe economic hardship because of the crisis in Hong Kong, *See* 86 FR 67485 (November 26, 2021). This temporary relief has enabled these F–1 nonimmigrant students to obtain employment authorization, work an increased number of hours while school was in session, and reduce their course load, while continuing to maintain their F–1 nonimmigrant student status.

As of March 2, 2023, approximately 5,863 F–1 nonimmigrants students who are Hong Kong residents were physically present in the United States and enrolled in SEVP-certified academic institutions. Many of these students are impacted by the current crisis in Hong Kong because their primary means of financial support comes from Hong Kong. Without employment authorization, these students may lack the means to meet basic living expenses. Therefore, in support of affected F–1 nonimmigrant students who may be unable to return to Hong Kong for the foreseeable future, the Secretary is exempting them from the normal student employment requirements so that they may support themselves as they continue their program of study in the United States.

What is the minimum course load requirement to maintain valid F–1 nonimmigrant status under this notice?

Undergraduate F–1 nonimmigrant students who receive on-campus or off-campus employment authorization under this notice must remain registered for a minimum of six semester or quarter hours of instruction per academic term. Undergraduate F–1 nonimmigrant students enrolled in a term of different duration must register for at least one half of the credit hours normally required under a ''full course of study.'' *See* 8 CFR 214.2(f)(6)(i)(B) and (F). A graduate-level F–1 nonimmigrant student who receives on-campus or off-campus employment authorization under this notice must remain registered for a minimum of three semester or quarter hours of instruction per academic term. *See* 8 CFR 214.2(f)(5)(v). Nothing in this notice affects the applicability of other minimum course load requirements set by the academic institution.

In addition, an F–1 nonimmigrant student (either undergraduate or graduate) granted on-campus or off-campus employment authorization under this notice may count up to the equivalent of one class or three credits per session, term, semester, trimester, or quarter of online or distance education toward satisfying this minimum course load requirement, unless their course of

[2] Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a ''full course of study,'' *see* 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of February 5, 2025, provided the student satisfies the minimum course load requirements in this notice. DHS also considers students who engage in online coursework pursuant to U.S. Immigration and Customs Enforcement (ICE) Coronavirus Disease 2019 (COVID–19) guidance for nonimmigrant students to be in compliance with regulations while such guidance remains in effect. *See* ICE Guidance and Frequently Asked Questions on COVID–19, Nonimmigrant Students & SEVP-Certified Schools: Frequently Asked Questions, *https://www.ice.gov/coronavirus* (last visited Jan. 17, 2023).

[3] ''Deferred Enforced Departure for Certain Hong Kong Residents Memorandum for the Secretary of State [and] the Secretary of Homeland Security,'' *https://www.whitehouse.gov/briefing-room/presidential-actions/2023/01/26/memorandum-on-extending-and-expanding-eligibility-for-deferred-enforced-departure-for-certain-hong-kong-residents/* (last visited Jan. 27, 2023).

[4] ''Deferred Enforced Departure for Certain Hong Kong Residents Memorandum for the Secretary of State [and] the Secretary of Homeland Security,'' *https://www.whitehouse.gov/briefing-room/presidential-actions/2023/01/26/memorandum-on-extending-and-expanding-eligibility-for-deferred-enforced-departure-for-certain-hong-kong-residents/* (last visited Jan. 27, 2023).

study is in an English language study program.[5] *See* 8 CFR 214.2(f)(6)(i)(G). An F–1 nonimmigrant student attending an approved private school in kindergarten through grade 12 or public school in grades 9 through 12 must maintain ''class attendance for not less than the minimum number of hours a week prescribed by the school for normal progress toward graduation,'' as required under 8 CFR 214.2(f)(6)(i)(E). Nothing in this notice affects the applicability of Federal and State labor laws limiting the employment of minors.

May an eligible F–1 nonimmigrant student who already has on-campus or off-campus employment authorization benefit from the suspension of regulatory requirements under this notice?

Yes. An F–1 nonimmigrant student who is a Hong Kong resident, regardless of country of birth, who already has on-campus or off-campus employment authorization and is otherwise eligible may benefit under this notice, which suspends certain regulatory requirements relating to the minimum course load requirement under 8 CFR 214.2(f)(6)(i) and certain employment eligibility requirements under 8 CFR 214.2(f)(9). Such an eligible F–1 nonimmigrant student may benefit without having to apply for a new Form I–766, Employment Authorization Document (EAD). To benefit from this notice, the F–1 nonimmigrant student must request that their designated school official (DSO) enter the following statement in the remarks field of the student's Student and Exchange Visitor Information System (SEVIS) record, which the student's Form I–20, Certificate of Eligibility for Nonimmigrant (F–1) Student Status, will reflect:

Approved for more than 20 hours per week of [DSO must insert ''on-campus'' or ''off-campus,'' depending upon the type of employment authorization the student already has] employment authorization and reduced course load under the Special Student Relief authorization from [DSO must insert the beginning date of the notice or the beginning date of the student's employment, whichever date is later] until [DSO must insert either the student's program end date, the current EAD expiration date (if the student is currently authorized for off-campus employment), or the end date of this notice, whichever date comes first].[6]

Must the F–1 nonimmigrant student apply for reinstatement after expiration of this special employment authorization if the student reduces his or her ''full course of study''?

No. DHS will deem an F–1 nonimmigrant student who receives and comports with the employment authorization permitted under this notice to be engaged in a ''full course of study''[7] for the duration of the student's employment authorization, provided that a qualifying undergraduate level F–1 nonimmigrant student remains registered for a minimum of six semester or quarter hours of instruction per academic term, and a qualifying graduate level F–1 nonimmigrant student remains registered for a minimum of three semester or quarter hours of instruction per academic term. *See* 8 CFR 214.2(f)(5)(v) and (f)(6)(i)(F). Undergraduate F–1 nonimmigrant students enrolled in a term of different duration must register for at least one half of the credit hours normally required under a ''full course of study.'' *See* 8 CFR 214.2(f)(6)(i)(B) and (F). DHS will not require such students to apply for reinstatement under 8 CFR 214.2(f)(16) if they are otherwise maintaining F–1 nonimmigrant status.

Will an F–2 dependent (spouse or minor child) of an F–1 nonimmigrant student covered by this notice be eligible for employment authorization?

No. An F–2 spouse or minor child of an F–1 nonimmigrant student is not authorized to work in the United States and, therefore, may not accept employment under the F–2 nonimmigrant status. *See* 8 CFR 214.2(f)(15)(i).

Will the suspension of the applicability of the standard student employment requirements apply to an individual who received an initial F–1 visa and makes an initial entry into the United States after the effective date of this notice in the Federal Register?

No. The suspension of the applicability of the standard regulatory requirements only applies to certain F–1 nonimmigrant students who meet the following conditions:

(1) Are Hong Kong residents, regardless of country of birth;

(2) Were lawfully present in the United States in F–1 nonimmigrant status on January 26, 2023, under section 101(a)(15)(F)(i) of the INA, 8 U.S.C. 1101(a)(15)(F)(i);

(3) Are enrolled in an academic institution that is SEVP-certified for enrollment of F–1 nonimmigrant students;

(4) Are maintaining F–1 nonimmigrant status; and

(5) Are experiencing severe economic hardship as a direct result of the current crisis in Hong Kong.

An F–1 nonimmigrant student who does not meet all these requirements is ineligible for the suspension of the applicability of the standard regulatory requirements (even if experiencing severe economic hardship as a direct result of the current crisis in Hong Kong).

Does this notice apply to a continuing F–1 nonimmigrant student who departs the United States after the effective date of this notice in the Federal Register and who needs to obtain a new F–1 visa before returning to the United States to continue an educational program?

Yes. This notice applies to such an F–1 nonimmigrant student, but only if the DSO has properly notated the student's SEVIS record, which will then appear on the student's Form I–20. The normal rules for visa issuance remain applicable to a nonimmigrant who needs to apply for a new F–1 visa to continue an educational program in the United States.

Does this notice apply to elementary school, middle school, and high school students in F–1 status?

Yes. However, this notice does not by itself reduce the required course load for F–1 nonimmigrant students who are Hong Kong residents enrolled in kindergarten through grade 12 at a private school, or grades 9 through 12 at a public high school. Such students must maintain the minimum number of hours of class attendance per week prescribed by the academic institution for normal progress toward graduation, as required under 8 CFR 214.2(f)(6)(i)(E). The suspension of certain regulatory requirements related to employment through this notice is applicable to all eligible F–1 nonimmigrant students regardless of educational level. Eligible F–1 nonimmigrant students who are Hong Kong residents enrolled in an

[5] DHS considers students who are compliant with ICE COVID–19 guidance for nonimmigrant students to be in compliance with regulations while such COVID–19 guidance remains in effect. *See* ICE Guidance and Frequently Asked Questions on COVID–19, *https://www.ice.gov/coronavirus* (last visited Jan. 17, 2023).

[6] Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a ''full course of study,'' *see* 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of February 5, 2025, provided the student satisfies the minimum course load requirements in this notice.

[7] *See* 8 CFR 214.2(f)(6).

elementary school, middle school, or high school do benefit from the suspension of the requirement in 8 CFR 214.2(f)(9)(i) that limits on-campus employment to 20 hours per week while school is in session. Nothing in this notice affects the applicability of Federal and State labor laws limiting the employment of minors.

On-Campus Employment Authorization

Will an F–1 nonimmigrant student who receives on-campus employment authorization under this notice be authorized to work more than 20 hours per week while school is in session?

Yes. For an F–1 nonimmigrant student covered in this notice, the Secretary is suspending the applicability of the requirement in 8 CFR 214.2(f)(9)(i) that limits an F–1 nonimmigrant student's on-campus employment to 20 hours per week while school is in session. An eligible F–1 nonimmigrant student has authorization to work more than 20 hours per week while school is in session if the DSO has entered the following statement in the remarks field of the student's SEVIS record, which will be reflected on the student's Form I–20:

Approved for more than 20 hours per week of on-campus employment and reduced course load, under the Special Student Relief authorization from [DSO must insert the beginning date of this notice or the beginning date of the student's employment, whichever date is later] until [DSO must insert the student's program end date or the end date of this notice, whichever date comes first].[8]

To obtain on-campus employment authorization, the F–1 nonimmigrant student must demonstrate to the DSO that the employment is necessary to avoid severe economic hardship directly resulting from the current crisis in Hong Kong. An F–1 nonimmigrant student authorized by the DSO to engage in on-campus employment by means of this notice does not need to file any applications with U.S. Citizenship and Immigration Services (USCIS). The standard rules permitting full-time employment on-campus when school is not in session or during school vacations apply, as described in 8 CFR 214.2(f)(9)(i).

Will an F–1 nonimmigrant student who receives on-campus employment authorization under this notice have authorization to reduce the normal course load and still maintain his or her F–1 nonimmigrant student status?

Yes. DHS will deem an F–1 nonimmigrant student who receives on-campus employment authorization under this notice to be engaged in a ''full course of study'' [9] for the purpose of maintaining their F–1 nonimmigrant student status for the duration of the on-campus employment, if the student satisfies the minimum course load requirement described in this notice, consistent with 8 CFR 214.2(f)(6)(i)(F). However, the authorization to reduce the normal course load is solely for DHS purposes of determining valid F–1 nonimmigrant student status. Nothing in this notice mandates that school officials allow an F–1 nonimmigrant student to take a reduced course load if the reduction would not meet the academic institution's minimum course load requirement for continued enrollment.[10]

Off-Campus Employment Authorization

What regulatory requirements does this notice temporarily suspend relating to off-campus employment?

For an F–1 student covered by this notice, as provided under 8 CFR 214.2(f)(9)(ii)(A), the Secretary is suspending the following regulatory requirements relating to off-campus employment:

(a) The requirement that a student must have been in F–1 nonimmigrant student status for one full academic year to be eligible for off-campus employment;

(b) The requirement that an F–1 nonimmigrant student must demonstrate that acceptance of employment will not interfere with the student's carrying a full course of study;

(c) The requirement that limits an F–1 nonimmigrant student's employment authorization to no more than 20 hours per week of off-campus employment while the school is in session; and

(d) The requirement that the student demonstrate that employment under 8 CFR 214.2(f)(9)(i) is unavailable or otherwise insufficient to meet the needs that have arisen as a result of the unforeseen circumstances.

Will an F–1 nonimmigrant student who receives off-campus employment authorization under this notice have authorization to reduce the normal course load and still maintain F–1 nonimmigrant status?

Yes. DHS will deem an F–1 nonimmigrant student who receives off-campus employment authorization by means of this notice to be engaged in a ''full course of study'' [11] for the purpose of maintaining F–1 nonimmigrant student status for the duration of the student's employment authorization if the student satisfies the minimum course load requirement described in this notice, consistent with 8 CFR 214.2(f)(6)(i)(F). However, the authorization for a reduced course load is solely for DHS purposes of determining valid F–1 nonimmigrant student status. Nothing in this notice mandates that school officials allow an F–1 nonimmigrant student to take a reduced course load if such reduced course load would not meet the school's minimum course load requirement.[12]

How may an eligible F–1 nonimmigrant student obtain employment authorization for off-campus employment with a reduced course load under this notice?

An F–1 nonimmigrant student must file a Form I–765, Application for Employment Authorization, with USCIS to apply for off-campus employment authorization based on severe economic hardship directly resulting from the current crisis in Hong Kong.[13] Filing instructions are located at *https://www.uscis.gov/i-765.*

Fee considerations. Submission of a Form I–765 currently requires payment of a $410 fee. An applicant who is unable to pay the fee may submit a completed Form I–912, Request for Fee Waiver, along with the Form I–765, Application for Employment Authorization. *See www.uscis.gov/feewaiver.* The submission must include an explanation about why USCIS should grant the fee waiver and the reason(s) for the inability to pay, and any evidence to support the reason(s). *See* 8 CFR 103.7(c) (Oct. 1, 2020).

Supporting documentation. An F–1 nonimmigrant student seeking off-campus employment authorization due to severe economic hardship must demonstrate the following to their DSO:

[8] Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a ''full course of study,'' *see* 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of February 5, 2025, provided the student satisfies the minimum course load requirements in this notice.

[9] *See* 8 CFR 214.2(f)(6).

[10] Minimum course load requirement for enrollment in a school must be established in a publicly available document (*e.g.,* catalog, website, or operating procedure), and it must be a standard applicable to all students (U.S. citizens and foreign students) enrolled at the school.

[11] *See* 8 CFR 214.2(f)(6).

[12] Minimum course load requirement for enrollment in a school must be established in a publicly available document (*e.g.,* catalog, website, or operating procedure), and it must be a standard applicable to all students (U.S. citizens and foreign students) enrolled at the school.

[13] *See* 8 CFR 274a.12(c)(3)(iii).

(1) This employment is necessary to avoid severe economic hardship; and

(2) The hardship is a direct result of the current crisis in Hong Kong.

If the DSO agrees that the F–1 nonimmigrant student is entitled to receive such employment authorization, the DSO must recommend application approval to USCIS by entering the following statement in the remarks field of the student's SEVIS record, which will then appear on that student's Form I–20:

Recommended for off-campus employment authorization in excess of 20 hours per week and reduced course load under the Special Student Relief authorization from the date of the USCIS authorization noted on Form I–766 until [DSO must insert the program end date or the end date of this notice, whichever date comes first].[14]

The F–1 nonimmigrant student must then file the properly endorsed Form I–20 and Form I–765 according to the instructions for the Form I–765. The F–1 nonimmigrant student may begin working off-campus only upon receipt of the EAD from USCIS.

DSO recommendation. In making a recommendation that an F–1 nonimmigrant student be approved for Special Student Relief, the DSO certifies that:

(a) The F–1 nonimmigrant student is in good academic standing and is carrying a ''full course of study'' [15] at the time of the request for employment authorization;

(b) The F–1 nonimmigrant student is a resident of Hong Kong, regardless of country of birth, and is experiencing severe economic hardship as a direct result of the current crisis in Hong Kong, as documented on the Form I–20;

(c) The F–1 nonimmigrant student has confirmed that the student will comply with the reduced course load requirements of this notice and register for the duration of the authorized employment for a minimum of six semester or quarter hours of instruction per academic term if at the undergraduate level or for a minimum of three semester or quarter hours of instruction per academic term if at the graduate level; [16] and

(d) The off-campus employment is necessary to alleviate severe economic hardship to the individual as a direct result of the current crisis in Hong Kong.

Processing. To facilitate prompt adjudication of the student's application for off-campus employment authorization under 8 CFR 214.2(f)(9)(ii)(C), the F–1 nonimmigrant student should do both of the following:

(a) Ensure that the application package includes all of the following documents:

(1) A completed Form I–765 with all applicable supporting evidence;

(2) The required fee or properly documented fee waiver request as defined in 8 CFR 103.7(c) (Oct. 1, 2020); and

(3) A signed and dated copy of the student's Form I–20 with the appropriate DSO recommendation, as previously described in this notice; and

(b) Send the application in an envelope which is clearly marked on the front of the envelope, bottom right-hand side, with the phrase ''SPECIAL STUDENT RELIEF.'' [17] Failure to include this notation may result in significant processing delays.

If USCIS approves the student's Form I–765, USCIS will send the student a Form I–766 EAD as evidence of employment authorization. The EAD will contain an expiration date that does not exceed the end of the granted temporary relief.

Deferred Enforced Departure (DED) Considerations

Can an F–1 nonimmigrant student re-apply or apply for a DED-related EAD and for benefits under this notice at the same time?

Yes. Although they are not required to apply for a DED-related EAD, if an eligible F–1 nonimmigrant student wants to obtain such an EAD, the student must file Form I–765 and pay the related fee (or request a fee waiver). The F–1 student may also apply for Special Student Relief under this notice by requesting that the DSO notate on their Form I–20 in SEVIS that the student has been authorized to carry a reduced course load and is permitted to work an increased number of hours under Special Student Relief while school is in session. The DSO should also notate on the Form I–20 that the student is working pursuant to a DED-related EAD. As long as the F–1 nonimmigrant student maintains the minimum course load described in this notice, does not otherwise violate the student's nonimmigrant status, including as provided under 8 CFR 214.1(g), and remains covered under DED, then the student maintains F–1 nonimmigrant status and DED concurrently.

When a student applies simultaneously for a DED-related EAD and benefits under this notice, what is the minimum course load requirement while an application for employment authorization is pending?

The F–1 nonimmigrant student must maintain normal course load requirements for a ''full course of study'' [18] unless or until the F–1 nonimmigrant student is granted employment authorization under this notice. DED-related employment authorization, by itself, does not authorize a nonimmigrant student to drop below twelve credit hours, or otherwise applicable minimum requirements (*e.g.,* clock hours for language students). Once approved for Special Student Relief employment authorization, the F–1 nonimmigrant student may drop below twelve credit hours, or otherwise applicable minimum requirements (with a minimum of six semester or quarter hours of instruction per academic term if the student is at the undergraduate level, or a minimum of three semester or quarter hours of instruction per academic term if the student is at the graduate level). *See* 8 CFR 214.2(f)(5)(v), 214.2(f)(6), 214.2(f)(9)(i) and (ii).

How does an F–1 student who has received a DED-related EAD then apply for authorization to take a reduced course load under this notice?

There is no further application process with USCIS if a student has been approved for a DED-related EAD. However, the F–1 nonimmigrant student must demonstrate and provide documentation to the DSO of severe economic hardship as a direct result of the current crisis in Hong Kong. The DSO will then verify and update the student's SEVIS record to enable the F–1 nonimmigrant student with DED to reduce their course load without any further action or application. No other EAD needs to be issued for the F–1 nonimmigrant student to have employment authorization.

[14] Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a ''full course of study,'' *see* 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of February 5, 2025, provided the student satisfies the minimum course load requirements in this notice.

[15] *See* 8 CFR 214.2(f)(6).

[16] 8 CFR 214.2(f)(5)(v).

[17] Guidance for direct filing addresses can be found here: *https://www.uscis.gov/i-765-addresses.*

[18] *See* 8 CFR 214.2(f)(6).

Can a noncitizen who has been granted a DED-related EAD apply for reinstatement to F–1 nonimmigrant student status after the noncitizen's F–1 nonimmigrant student status has lapsed?

Yes. Current regulations permit certain students who fall out of F–1 nonimmigrant student status to apply for reinstatement. *See* 8 CFR 214.2(f)(16). This provision might apply to students who worked on a DED-related EAD or dropped their course load before publication of this notice, and therefore fell out of F–1 nonimmigrant status. The student must satisfy the criteria set forth in the F–1 nonimmigrant student status reinstatement regulations.

How long will this notice remain in effect?

This notice grants temporary relief through February 5, 2025,[19] to eligible F–1 nonimmigrant students. DHS will continue to monitor the situation in Hong Kong. Should the special provisions authorized by this notice need modification or extension, DHS will announce such changes in the **Federal Register**.

Paperwork Reduction Act (PRA)

An F–1 nonimmigrant student seeking off-campus employment authorization due to severe economic hardship resulting from the current crisis in Hong Kong must demonstrate to the DSO that this employment is necessary to avoid severe economic hardship. A DSO who agrees that a nonimmigrant student should receive such employment authorization must recommend an application approval to USCIS by entering information in the remarks field of the student's SEVIS record. The authority to collect this information is in the SEVIS collection of information currently approved by the Office of Management and Budget (OMB) under OMB Control Number 1653–0038.

This notice also allows an eligible F–1 nonimmigrant student to request employment authorization, work an increased number of hours while the academic institution is in session, and reduce their course load while continuing to maintain F–1 nonimmigrant student status.

To apply for employment authorization, certain F–1 nonimmigrant students must complete and submit a currently approved Form I–765 according to the instructions on the form. OMB has previously approved the collection of information contained on the current Form I–765, consistent with the PRA (OMB Control No. 1615–0040). Although there will be a slight increase in the number of Form I–765 filings because of this notice, the number of filings currently contained in the OMB annual inventory for Form I–765 is sufficient to cover the additional filings. Accordingly, there is no further action required under the PRA.

Alejandro Mayorkas,

Secretary, U.S. Department of Homeland Security

[FR Doc. 2023–09512 Filed 5–3–23; 8:45 am]

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[19] Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a ''full course of study,'' *see* 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of February 5, 2025, provided the student satisfies the minimum course load requirement in this notice. DHS also considers students who engage in online coursework pursuant to ICE COVID–19 guidance for nonimmigrant students to be in compliance with regulations while such guidance remains in effect. *See* ICE Guidance and Frequently Asked Questions on COVID–19, Nonimmigrant Students & SEVP-Certified Schools: Frequently Asked Questions, *https://www.ice.gov/coronavirus* (last visited Jan. 17, 2023).

DEPARTMENT OF HOMELAND SECURITY

U.S. Citizenship and Immigration Services

[CIS 2739–23; DHS Docket No. USCIS 2021–0020; RIN 1615–ZB90]

Implementation of Employment Authorization for Individuals Covered by Deferred Enforced Departure for Hong Kong

AGENCY: U.S. Citizenship and Immigration Services (USCIS), Department of Homeland Security.

ACTION: Notice of employment authorization for individuals covered by Deferred Enforced Departure (DED).

SUMMARY: On January 26, 2023, President Joseph Biden issued a memorandum to the Secretary of State and the Secretary of Homeland Security (Secretary) determining that it was in the foreign policy interest of the United States to extend and expand the deferral of removal of certain Hong Kong residents present in the United States through February 5, 2025, and to provide them with employment authorization documentation. The memorandum directed the Secretary to make provision for immediate allowance of employment authorization for such individuals. This Notice provides information about Deferred Enforced Departure (DED) for eligible Hong Kong residents and provides information on how eligible individuals may apply for DED-based Employment Authorization Documents (EADs) with USCIS. Through this notice, DHS is providing employment authorization, including procedures for obtaining related documentation, for covered individuals through February 5, 2025, and automatically extending the validity of DED-based EADs bearing a Category Code of A11 and a ''Card Expires'' date of February 5, 2023 through February 5, 2025. Finally, this Notice provides instructions for DED-eligible Hong Kong residents on how to file for advance travel authorization. For the purposes of this Notice, a Hong Kong resident is defined as an individual of any nationality, or without nationality, who has met the requirements for, and been granted, a Hong Kong Special Administrative Region Passport, a British National Overseas Passport, a British Overseas Citizen Passport, a Hong Kong Permanent Identity card, or a Hong Kong Special Administrative Region (HKSAR) Document of Identity for Visa Purposes.

DATES: DED and employment authorization for noncitizens covered by DED for Hong Kong residents is effective January 26, 2023, through February 5, 2025. Employment authorization and the procedures for obtaining EADs in this Notice apply to any of the following individuals (except those who are subject to any of the ineligibilities described in President Biden's memorandum to the Secretaries of State and Homeland Security): noncitizens who are Hong Kong residents, who were covered by DED until February 5, 2023; as well as Hong Kong residents, who have been continuously physically present in the United States since January 26, 2023. Hong Kong residents must meet all eligibility criteria for DED described below.

FOR FURTHER INFORMATION CONTACT:

- You may contact René Cutlip-Mason, Chief, Humanitarian Affairs Division, Office of Policy and Strategy, U.S. Citizenship and Immigration Services, Department of Homeland Security, by mail at 5900 Capital Gateway Drive, Camp Springs, MD 20746, or by phone at 800–375–5283.
- For further information on DED, including additional information on eligibility, please visit the USCIS DED web page at *https://www.uscis.gov/humanitarian/deferred-enforced-departure.* You can find specific information about DED for Hong Kong residents by selecting ''DED Covered Country: Certain Hong Kong Residents''

from the menu on the left of the DED web page.

• If you have additional questions about DED, please visit *https://www.uscis.gov/tools.* Our online virtual assistant, Emma, can answer many of your questions and point you to additional information on our website. If you are unable to find your answers there, you may also call our USCIS Contact Center at 800–375–5283 (TTY 800–767–1833).

• Applicants seeking information about the status of their individual cases may check Case Status Online, available on the USCIS website at *https://www.uscis.gov,* or visit the USCIS Contact Center at *https://www.uscis.gov/contactcenter.*

• Further information will also be available at local USCIS offices upon publication of this Notice.

SUPPLEMENTARY INFORMATION:

Table of Abbreviations

CFR—Code of Federal Regulations
DED—Deferred Enforced Departure
DHS—U.S. Department of Homeland Security
EAD—Employment Authorization Document
FNC—Final Non-confirmation
Form I–131—Application for Travel Document
Form I–765—Application for Employment Authorization
Form I–797—Notice of Action
Form I–9—Employment Eligibility Verification
Form I–912—Request for Fee Waiver
FR—Federal Register
Government—U.S. Government
IER—U.S. Department of Justice, Civil Rights Division, Immigrant and Employee Rights Section
SAVE—USCIS Systematic Alien Verification for Entitlements Program
Secretary—Secretary of Homeland Security
TPS—Temporary Protected Status
TTY—Text Telephone
USCIS—U.S. Citizenship and Immigration Services
U.S.C.—United States Code

Purpose of This Action

Pursuant to the President's constitutional authority to conduct the foreign relations of the United States, President Biden has concluded that it is in the foreign policy interest of the United States to defer through February 5, 2025, the removal of certain Hong Kong residents, who were present in the United States since January 26, 2023.[1] Through this Notice, as directed by the President, DHS is establishing procedures for individuals covered by DED for Hong Kong to apply for EADs valid through February 5, 2025, and automatically extending through February 5, 2025 the validity of DED-based EADs bearing a Category Code of A11 and a ''Card Expires'' date of February 5, 2023.

What is Deferred Enforced Departure (DED)?

• DED is an administrative deferral of removal ordered by the President. The authority to extend DED arises from the President's constitutional authority to conduct the foreign relations of the United States. The President can authorize DED for any reason related to this authority. DED has been authorized in situations where foreign nationals or other groups of noncitizens may face danger if required to return to countries or any part of such foreign countries experiencing political instability, conflict, or other unsafe conditions, or when there are other foreign policy reasons for allowing a designated group of noncitizens to remain in the United States.

• Although DED is not a specific immigration status, individuals covered by DED are not subject to removal from the United States, usually for a designated period of time. Furthermore, the President may direct that certain benefits, such as employment authorization or advance travel authorization, be available to the noncitizens covered by the DED directive.

• If the President provides for employment or advance travel authorization, USCIS administers those benefits. USCIS publishes a **Federal Register** notice to inform the covered population on how to apply for any benefits provided.

• The President issues directives regarding DED and who is covered via presidential memorandum. The qualification requirements for individuals who are covered by DED are based on the terms of the President's directive regarding DED and any relevant implementing requirements established by DHS. Since DED is a directive to defer removal of an individual, rather than a specific immigration status like Temporary Protected Status (TPS), there is no DED application form required for an individual to be covered by DED. Form I–765, Application for Employment Authorization, may be filed if a DED-covered individual wants an EAD.

Background

The President has determined that there are compelling foreign policy reasons to extend and expand DED for certain Hong Kong residents. In his January 26, 2023 memorandum, he explained that ''[t]he United States is committed to a foreign policy that unites our democratic values with our foreign policy goals, which is centered on the defense of democracy and the promotion of human rights around the world. Offering safe haven to Hong Kong residents who have been deprived of their guaranteed freedoms in Hong Kong furthers United States interests in the region.''

Ur M. Jaddou,

Director, U.S. Citizenship and Immigration Services.

Eligibility and Employment Authorization for DED

How will I know if I am eligible for employment authorization under the DED Presidential Memorandum for Hong Kong residents?

The procedures for employment authorization in this Notice apply to non-U.S. citizens who are Hong Kong residents (regardless of their country of birth), who are present in the United States and who were covered by DED until February 5, 2023, as well as Hong Kong residents, who have been continuously physically present in the United States since January 26, 2023, except for noncitizens:

• Who have voluntarily returned to Hong Kong or other parts of the People's Republic of China (PRC) after January 26, 2023;

• Who have not continuously resided in the United States since January 26, 2023;

• Who are inadmissible under section 212(a)(3) of the Immigration and Nationality Acct (INA) (8 U.S.C. 1182(a)(3)) or deportable under section 237(a)(4) of the INA (8 U.S.C. 1227(a)(4));

• Who have been convicted of any felony or two or more misdemeanors committed in the United States, or who meet any of the criteria set forth in section 208(b)(2)(A) of the INA (8 U.S.C. 1158(b)(2)(A));

• Who are subject to extradition;

• Whose presence in the United States the Secretary of Homeland Security has determined is not in the interest of the United States or presents a danger to public safety; or

• Whose presence in the United States the Secretary of State has reasonable grounds to believe would have potentially serious adverse foreign

[1] *See* Presidential Memorandum for the Secretary of State and the Secretary of Homeland Security on Extending and Expanding Eligibility for Deferred Enforced Departure for Certain Hong Kong Residents, January 26, 2023, *https://www.whitehouse.gov/briefing-room/presidential-actions/2023/01/26/memorandum-on-extending-and-expanding-eligibility-for-deferred-enforced-departure-for-certain-hong-kong-residents/* (*reprinted at* 88 FR 6143 (Jan. 31, 2023)).

policy consequences for the United States.

What will I need to file if I am covered by DED and would like to obtain an EAD?

If you are covered by DED for Hong Kong and want a DED-based EAD, you must file Form I–765, Application for Employment Authorization. Please carefully follow the Form I–765 instructions when completing the application for an EAD. When filing the Form I–765, you must:

- Indicate that you are eligible for DED by entering ''(a)(11)'' in response to Question 27 on the Form I–765; and
- Submit the fee for the Form I–765 (or request a fee waiver).

The regulations require individuals covered by DED who request an EAD to pay the fee prescribed in 8 CFR 103.7 (Oct. 1, 2020) for the Form I–765. *See also* 8 CFR 274a.12(a)(11) (employment authorization for DED-covered individuals); and 8 CFR 274a.13(a) (requirement to file EAD application if EAD desired). If you are unable to pay the fee, you may request a fee waiver by submitting a Request for Fee Waiver (Form I–912).

If you currently have a DED-based EAD bearing a Category Code of A11 and a ''Card Expires'' date of February 5, 2023 and are covered by DED under the January 26, 2023 Presidential Memorandum, your EAD is automatically extended through February 5, 2025, even though the expiration date stated on the front of the card has passed.

Supporting Documentation

The filing instructions on Form I–765 list all the documents needed. You may also find information on the initial required documents on the USCIS website at *https://www.uscis.gov/i-765.* If USCIS determines after reviewing your submission that it needs additional information, it will issue you a Request for Evidence (RFE).

How will I know if USCIS will need to obtain biometrics?

If biometrics are required to produce your EAD, you will be notified by USCIS and scheduled for an appointment at a USCIS Application Support Center.

Where do I submit my completed DED-based Application for Employment Authorization (Form I–765)?

For a DED-based EAD, mail your completed Form I–765 and supporting documentation to the proper address in Table 1.

TABLE 1—MAILING ADDRESSES

If you are . . .	Mail to . . .
Mailing your form through the U.S. Postal Service (USPS)	USCIS, Attn: DED Hong Kong, P.O. Box 805283, Chicago, IL 60680–5283.
Using FedEx, UPS, or DHL	USCIS, Attn: DED Hong Kong (Box 805283), 131 S Dearborn St., 3rd Floor, Chicago, IL 60603–5517.

You may file Form I–765 and Form/I–131, Application for Travel Document together or separately. More information on filing a Form I–131 appears below.

Can I file my DED-based Form I–765 electronically?

No. Electronic filing is not available when filing a DED-based Form I–765.

What happens after February 5, 2025, to DED-based EADs?

This DED authorization is set to end on February 5, 2025. After that date, employers can no longer accept EADs with a Category Code of A11 and a ''Card Expires'' date of February 5, 2023 or February 5, 2025. Employees will need to present other evidence of continued work authorization.

Travel

In its discretion, DHS may provide advance travel authorization as a benefit of DED for eligible Hong Kong residents. You must file for advance travel authorization if you wish to travel outside of the United States. If granted, advance travel authorization gives you permission to leave the United States and return during a specific period. To request advance travel authorization, you must file Form I–131, Application for Travel Document, available at *https://www.uscis.gov/i-131.* You may file Form I–131 together with your Form I–765 or separately. When filing the Form I–131, you must:

- Select Item Number 1.d. in Part 2 on the Form I–131; and
- Submit the fee for the Form I–131.

If you leave the United States without first receiving advance travel authorization, you may no longer be eligible for DED and may not be permitted to reenter the United States. Please also be advised that if you return to Hong Kong or other parts of the PRC, you may not be permitted to resume DED in the United States since the presidential memorandum extending and expanding eligibility for DED for certain Hong Kong residents excludes individuals who have voluntarily returned to Hong Kong or other parts of the PRC after January 26, 2023.

Mailing Information

Mail your completed Form I–131 to the proper address provided in Table 1.

Supporting Documentation

The filing instructions for Form I–131 list all the documents you need to include with your application. You may also find information on the acceptable documentation and DED eligibility on the USCIS website at *https://www.uscis.gov/humanitarian/deferred-enforced-departure.* If USCIS needs additional evidence, it will issue you a RFE.

General Employment-Related Information for Individuals With DED-Based EADs and Their Employers

How can I obtain information on the status of my EAD request?

To get case status information about your DED-based EAD request, you can check Case Status Online at *https://www.uscis.gov,* or visit the USCIS Contact Center at *https://www.uscis.gov/contactcenter.* If your Form I–765 has been pending for more than 90 days, and you still need assistance, you may ask a question about your case online at *https://egov.uscis.gov/e-request/Intro.do* or call the USCIS Contact Center at 800–375–5283 (TTY 800–767–1833).

*Does this **Federal Register** notice automatically extend my current Hong Kong DED EAD through February 5, 2025?*

Yes. Regardless of your country of birth, if you are a resident of Hong Kong, you were covered by DED for Hong Kong until February 5, 2023, and you are covered by DED under the January 26, 2023 Presidential Memorandum, this notice automatically extends your DED-based EAD bearing a February 5, 2023 ''Card Expires'' date and an A11 Category Code through February 5, 2025. This means that your EAD is valid through February 5, 2025,

even though the ''Card Expires'' date has passed.

When I am hired, what documentation may I show to my employer as evidence of identity and employment authorization when completing Form I–9?

You can find the Lists of Acceptable Documents on the third page of Form I–9, Employment Eligibility Verification, as well as the Acceptable Documents web page at *https://www.uscis.gov/i-9-central/acceptable-documents.* Employers must complete Form I–9 to verify the identity and employment authorization of all new employees they hire. Within three business days of hire, employees must present acceptable document(s) to their employers as evidence of identity and employment authorization to satisfy Form I–9 requirements and employers must complete Section 2 of the Form I–9. For employment that will last less than three days, Section 2 of the Form I–9 must be completed no later than the first day of work for pay.

You may present any documentation from List A (which provides evidence of both identity and employment authorization) or documentation from List B (which provides evidence of your identity) together with documentation from List C (which provides evidence of employment authorization), or where applicable you may present an acceptable receipt. Receipts may not be accepted if employment will last less than three days. Additional information on receipts is available at *https://www.uscis.gov/i-9-central/form-i-9-acceptable-documents/receipts.* Employers may not reject a document based on a future expiration date. You can find additional information about Form I–9 on the I–9 Central web page at *https://www.uscis.gov/I-9Central.* An EAD is an acceptable document under List A.

If I have an EAD based on another immigration status, can I obtain a new DED-based EAD?

Yes, if you are covered by DED, you can obtain a new DED-based EAD, regardless of whether you have an EAD based on another immigration status. If you want to obtain a DED-based EAD valid through February 5, 2025, you must file Form I–765 and pay the associated fee (or request a fee waiver).

Can my employer require that I provide any other documentation to prove my status, such as proof of my Hong Kong residency?

No. When completing Form I–9, employers must accept any documentation that appears on the Form I–9 Lists of Acceptable Documents that reasonably appears to be genuine and that relates to you, or an acceptable List A, List B, or List C receipt. Therefore, employers may not request other documentation, such as a Form I–797, Form I–797C or proof of Hong Kong residency, when completing Form I–9. Refer to the ''Note to Employees'' section of this **Federal Register** notice for important information about your rights if your employer rejects lawful documentation, requires additional documentation, or otherwise discriminates against you based on your citizenship or immigration status, or your national origin.

Note to All Employers

Employers are reminded that the laws requiring proper employment eligibility verification and prohibiting unfair immigration-related employment practices remain in full force. This **Federal Register** notice does not supersede or in any way limit applicable employment verification rules and policy guidance, including those rules setting forth reverification requirements. For general questions about the employment eligibility verification process, employers may call USCIS at 888–464–4218 (TTY 877–875–6028) or email USCIS at *I-9Central@dhs.gov.* USCIS accepts calls and emails in English and many other languages. For questions about avoiding discrimination during the employment eligibility verification process (Form I–9 and E-Verify), employers may call the U.S. Department of Justice, Civil Rights Division, Immigrant and Employee Rights Section (IER) Employer Hotline at 800–255–8155 (TTY 800–237–2515). IER offers language interpretation in numerous languages. Employers may also email IER at *IER@usdoj.gov.*

Note to Employees

For general questions about the employment eligibility verification process, employees may call USCIS at 888–897–7781 (TTY 877–875–6028) or email USCIS at *I-9Central@dhs.gov.* USCIS accepts calls in English, Spanish and many other languages. Employees or applicants may also call the IER Worker Hotline at 800–255–7688 (TTY 800–237–2515) for information regarding employment discrimination based upon citizenship, immigration status, or national origin, including discrimination related to Form I–9 and E-Verify. The IER Worker Hotline provides language interpretation in numerous languages.

To comply with the law, employers must accept any document or combination of documents from the Lists of Acceptable Documents if the documentation reasonably appears to be genuine and to relate to the employee, or an acceptable List A, List B, or List C receipt. Employers may not require extra or additional documentation beyond what is required for Form I–9 completion. Further, employers participating in E-Verify who receive an E-Verify case result of Tentative Non-confirmation (mismatch) must promptly inform employees of the mismatch and give such employees an opportunity to resolve the mismatch. A mismatch case result means that the information entered into E-Verify from Form I–9 differs from records available to DHS.

Employers may not terminate, suspend, delay training, withhold or lower pay, or take any adverse action against an employee because of the mismatch while the case is still pending with E-Verify. A Final Non-confirmation (FNC) case result is received when E-Verify cannot confirm an employee's employment eligibility. An employer may terminate employment based on a case result of FNC. Work-authorized employees who receive an FNC may call USCIS for assistance at 888–897–7781 (TTY 877–875–6028). For more information about E-Verify-related discrimination or to report an employer for discrimination in the E-Verify process based on citizenship, immigration status, or national origin, contact IER's Worker Hotline at 800–255–7688 (TTY 800–237–2515). Additional information about proper nondiscriminatory Form I–9 and E-Verify procedures is available on the IER website at *https://www.justice.gov/ier* and the USCIS and E-Verify websites at *https://www.uscis.gov/i-9-central* and *https://www.e-verify.gov.*

Note Regarding Federal, State, and Local Government Agencies (Such as Departments of Motor Vehicles)

For Federal purposes, if you present an automatically extended DED-based EAD referenced in this **Federal Register** notice, you do not need to show any other document, such as a Form I–797 or Form I–797C, Notice of Action or this **Federal Register** notice, to prove that you qualify for this extension. While Federal Government agencies must follow the guidelines laid out by the Federal Government, state and local government agencies establish their own rules and guidelines when granting certain benefits. Each state may have different laws, requirements, and determinations about what documents you need to provide to prove eligibility

for certain benefits. Whether you are applying for a Federal, state, or local government benefit, you may need to provide the government agency your DHS-issued documentation showing you are covered by DED and/or showing you are authorized to work based on DED. Examples of such documents are:

- Your current EAD with a DED Category Code of A11, even if your country of birth noted on the EAD does not reflect the DED designation for Hong Kong; or
- Your Form I–797, Notice of Action, reflecting approval of your Form I–765; or
- Your Form I–797 or Form I–797C, Notice of Action, reflecting approval or receipt of a past or current Form I–765.

Check with the government agency requesting documentation regarding which documentation the agency will accept.

Some state and local government agencies use the Systematic Alien Verification for Entitlements (SAVE) program to confirm the current immigration status of applicants for public benefits. While SAVE can verify that an individual is covered by DED, each state and local government agency's procedures govern whether they will accept an unexpired EAD, Form I–797, or Form I–797C. If an agency accepts the type of DED-related document you present, such as a DED-based EAD, the agency should accept your automatically extended EAD, regardless of the country of birth listed on the EAD. It may assist the agency if you:

a. Give the agency a copy of the relevant **Federal Register** notice showing the EAD extension in addition to presenting your recent EAD with your A-Number or USCIS number;

b. Explain that SAVE will be able to verify the continuation of DED using this information; and

c. Ask the agency to submit a SAVE verification request with your information and follow through with additional verification steps, if necessary, to obtain a final SAVE response verifying your coverage under DED.

You can also ask the agency to look for SAVE notices or contact SAVE if they have any questions about your immigration status or automatic extension of DED-related documentation. In most cases, SAVE provides an automated electronic response to benefit-granting agencies within seconds, but occasionally verification can be delayed.

You can check the status of your SAVE verification by using CaseCheck at *https://save.uscis.gov/casecheck/.* CaseCheck is a free service that lets you follow the progress of your SAVE verification using your date of birth and one immigration identifier number (A-Number or USCIS number) or Verification case number. If an agency has denied your application based solely or in part on a SAVE response, the agency must offer you the opportunity to appeal the decision in accordance with the agency's procedures. If the agency has received and acted on or will act on a SAVE verification and you do not believe the response is correct, the SAVE website, *https://www.uscis.gov/save,* has detailed information on how to make corrections or update your immigration record, make an appointment, or submit a written request to correct records.

[FR Doc. 2023–09507 Filed 5–3–23; 8:45 am]

BILLING CODE 9111–97–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–7070–N–23]

30-Day Notice of Proposed Information Collection: Multifamily Housing Procedures for Projects Affected by Presidentially-Declared Disasters; OMB Control No.: 2502–0582

AGENCY: Office of Policy Development and Research, Chief Data Officer, HUD.

ACTION: Notice.

SUMMARY: HUD is seeking approval from the Office of Management and Budget (OMB) for the information collection described below. In accordance with the Paperwork Reduction Act, HUD is requesting comment from all interested parties on the proposed collection of information. The purpose of this notice is to allow for an additional 30 days of public comment.

DATES: *Comments Due Date:* June 5, 2023.

ADDRESSES: Interested persons are invited to submit comments regarding this proposal. 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.* 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: Colette Pollard, Reports Management Officer, REE, Department of Housing and Urban Development, 451 7th Street SW, Washington, DC 20410; email Colette Pollard at *PaperworkReductionActOffice@hud.gov* or telephone 202–402–3400. This is not a toll-free number. HUD welcomes and is prepared to receive calls from individuals who are deaf or hard of hearing, as well as individuals with speech and communication disabilities. To learn more about how to make an accessible telephone call, please visit *https://www.fcc.gov/consumers/guides/telecommunications-relay-service-trs.* Copies of available documents submitted to OMB may be obtained from Ms. Pollard.

SUPPLEMENTARY INFORMATION: This notice informs the public that HUD is seeking approval from OMB for the information collection described in section A.

The **Federal Register** notice that solicited public comment on the information collection for a period of 60 days was published on November 18, 2022 at 87 FR 69288.

A. Overview of Information Collection

Title of Information Collection: Disaster Management.

OMB Approval Number: 2502–0582.

OMB Expiration Date: June 30, 2023.

Type of Request: Extension of currently approved collection.

Form Number: None.

Description of the need for the information and proposed use: Disaster relief is intended to provide an orderly and continuing means of assistance by the Federal Government to non-profit institutions in carrying out their responsibilities to alleviate the suffering and damage which result from such disasters. The purpose of this information collection is to ensure that owners follow HUD procedures, as laid out in HUD Housing Handbook 4350.1, chapter 38, regarding recovery efforts after a Presidentially declared disaster.'' This information collection is used to ensure these procedures minimize disruption to HUD's normal business requirements by owners and set guidelines for owner/tenant responsibilities under these circumstances. Affected owners are provided instruction and assistance to respond with disaster management. Disaster Relief is limited to the period following a disaster event.

Respondents: Non-profit institutions.

Estimated Number of Respondents: 5,367.

Estimated Number of Responses: 5,367.

Frequency of Response: 1.

Average Hours per Response: 0.25.

Total Estimated Burden: 1,342.

B. Solicitation of Public Comment

This notice is soliciting comments from members of the public and affected parties concerning the collection of information described in section A on the following:

(1) 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) The accuracy of the agency's estimate of the burden of the proposed collection of information;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) Ways to minimize the burden of the collection of information on those who are to respond—including through the use of appropriate automated collection techniques or other forms of information technology, such as permitting electronic submission of responses.

(5) 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.

HUD encourages interested parties to submit comment in response to these questions.

C. Authority

Section 3507 of the Paperwork Reduction Act of 1995, 44 U.S.C. chapter 35.

Colette Pollard,

Department Reports Management Officer, Office of Policy Development and Research, Chief Data Officer.

[FR Doc. 2023–09484 Filed 5–3–23; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–7076–N–11]

60-Day Notice of Proposed Information Collection: Project Based Vouchers (PBV) Online Form, OMB Control No.: 2577–0296

AGENCY: Office of the Assistant Secretary for Public and Indian Housing (PIH), HUD.

ACTION: Notice.

SUMMARY: HUD is seeking approval from the Office of Management and Budget (OMB) for the information collection described below. In accordance with the Paperwork Reduction Act, HUD is requesting comment from all interested parties on the proposed collection of information. The purpose of this notice is to allow for 60 days of public comment.

DATES: *Comments Due Date:* July 3, 2023.

ADDRESSES: Interested persons are invited to submit comments regarding this proposal.

Written comments and recommendations for the proposed information collection can be sent within 60 days of publication of this notice to *OIRA_submission@omb.eop.gov* or *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 60-day Review—Open for Public Comments'' or by using the search function.

Interested persons are also invited to submit comments regarding this proposal by name and/or OMB Control Number and can be sent to: Colette Pollard, Reports Management Officer, REE, Department of Housing and Urban Development, 451 7th Street SW, Room 8210, Washington, DC 20410–5000; or email at *PaperworkReductionActOffice@hud.gov.*

FOR FURTHER INFORMATION CONTACT: Colette Pollard, Reports Management Officer, REE, Department of Housing and Urban Development, 451 7th Street SW, Washington, DC 20410; email Colette Pollard at *Colette.Pollard@hud.gov,* telephone 202–402–3400. This is not a toll-free number. HUD welcomes and is prepared to receive calls from individuals who are deaf or hard of hearing, as well as individuals with speech or communication disabilities. To learn more about how to make an accessible telephone call, please visit *https://www.fcc.gov/consumers/guides/telecommunications-relay-service-trs.*

Copies of available documents submitted to OMB may be obtained from Ms. Pollard.

SUPPLEMENTARY INFORMATION: This notice informs the public that HUD is seeking approval from OMB for the information collection described in Section A.

A. Overview of Information Collection

Title of Information Collection: Project Based Vouchers (PBV) Online Form.

OMB Approval Number: OMB: 2577–0296.

Type of Request: Revision of a currently approved collection.

Form Number: HUD is developing a standardized electronic system that will collect this information. Within the scope of this collection, HUD requests the information in this notice from Public Housing Authorities (PHA) participating in the PBV program.

Description of the need for the information and proposed use: PHAs apply for funding to assist low-income families to lease housing. One of the programs through which PHAs provide housing assistance is the Housing Choice Voucher (HCV) Program, a tenant-based rental assistance program. This program operates by providing vouchers that cover a portion of the contract rent for a unit. Some PHAs project-base their vouchers (the rental assistance is connected to a unit, not a family). Project-based vouchers (PBVs) are becoming a larger percentage of PHAs overall HCV portfolios, rising from just over 110,000 in 2016 to approximately 307,000 at the end of 2022. The PBV portfolio is expected to grow even more with the on-going conversion of up to 455,000 public housing units to project-based assistance under the Congressionally authorized Rental Assistance Demonstration (RAD). HUD currently collects information on individual participants in the HCV program who are in PBV units and Project Based Certificate (PBC) housing through the PIC system. In addition, HUD collects aggregate information on the total number of PBVs under contract at the PHA level. HUD currently does not systematically collect information on the project or development level for PBVs.

This leaves a gap in HUD's information collection of PBVs between the individual tenant data and the aggregated PHA data. HUD does not systematically collect information on the development or project level, including the number of units at PBV projects, what exceptions apply, their rents, the terms of contract, and numerous other potential data points. This creates a challenge for monitoring, tracking and analyzing PBV projects, and limits HUD's ability to respond to requests for information on the PBV program from Congress and other sources. Additionally, it prevents HUD from having data with which to make informed decisions on risk-mitigation strategies with respect to PBVs.

Potential risks are particularly heightened in the case of RAD PBV where a PHA-owned property is required to have an independent entity that performs inspections and determines rent adjustments. Currently, HUD has limited information about RAD PBV properties after conversion and is unable to adequately monitor their long-term viability. Through this collection, HUD is requiring the submission of project-level data on all

PBVs, including but not limited to RAD PBV, Mixed Finance PBVs, all PBVs at Moving to Work (MTW) Agencies, and all PBVs at non-MTW Agencies.

Field Changes:

This data collection will be renewing the following fields of collection for PBV:

- HAP Contract Number
- Name of Project
- Primary Street Address
- Structure Type
- Effective Date of HAP Contract
- Expiration Date of HAP Contract
- Type of Project Based Section 8 Contract
- Is this a RAD HAP contract?
- Vacancy Payments Permitted?
- Ownership Structure
- If PHA-Owned: Name of Independent Entity or Entities
- Number of Total Units in the Project (PBV and non-PBV Units)
- Number of Units Under HAP Contract by Bedroom Size
- Number and Bedroom Distribution of PBV-Assisted Section 504 Units at the Project
- Does an Exception to the Income-Mixing Requirement Apply?
- If Yes, which exception is applicable?
- Program Cap Exception?
- If yes, enter the number of units for each excepted category.

In addition to the data fields previously reviewed and approved by OMB, this PRA renewal includes new fields specific for RAD PBV projects that will need to be completed for each project with a RAD PBV HAP Contract annually.

The new fields of collection for RAD PBV projects include:

- Annual Replacement Reserve Deposit Amount
- Annual Replacement Reserve Withdrawal Amount
- Ending Balance for the Replacement Reserve Account
- Replacement Reserve Deposits Suspended/Waived Indicator?
- Date Replacement Reserve Deposits Suspended/Waived?

Within the PRA renewal the following fields will be discontinued and deleted from the form:

- Number of Units Under AHAP
- Effective Date(s) of AHAP
- Owner Name
- Owner Tax ID
- Management Entity
- Other Related Programs: Tax Credit, RAD, HUD-insured, VASH, or Other
- Population Served: General, Homeless, Veterans, Families Eligible for Supportive Services, Families Receiving Supportive Services, Elderly Family, Disabled Family
- Supportive Services Available (Y/N)?
- Unique Project Building Code
- Number of RAD PBVs
- Use Restriction End Date
- Year Built

HUD recognizes that some of this information may be submitted to HUD, for instance as part of the initial subsidy layering review process, however, these submissions are insufficient to give HUD a universal and currently accurate picture of the PBV universe. Therefore, HUD is proposing this information collection.

Definitions

HAP Contract Number

This is a unique number generated by the system when a new HAP Contract is entered into the HIP.

Name of Project

The name of the project as determined by the PHA as used in public or property records (where such records contain a name of the property as a whole) or the commonly used name of the project (such as the name on a sign at the property entrance). If no such name exists, a name for the project designated by the PHA for use in the system. ''Project'' is defined consistent with 24 CFR 983.3(b) as ''a single building, multiple contiguous buildings, or multiple buildings on contiguous parcels of land.''

Primary Street Address

The street address (including text fields for city, state, and zip code) of the building or buildings covered by the HAP contract and all units covered under the HAP contract.

Structure Type

The most closely matching description of the project from among this list: Single-Family and Non-Single-Family. Single-family is defined in the 24 CFR 983.3(b) as ''a building with no more than four dwelling units (assisted or unassisted).''

Effective Date of HAP Contract

Effective date listed in § 1(d) of Part 1 of the HAP contract. A single-stage project will have the same effective date for all contract units. For a multi-stage project, include the effective date of the first stage of the HAP contract. If the HAP contract has multiple stages, enter the effective date of the first stage.

Expiration Date of HAP Contract

The HAP contract term end date, as determined by adding the length of the HAP contract term (initial and any extensions) to the effective date listed in § 1(d) of Part 1 of the HAP contract (for a multi-stage project, use the effective date of the first stage). The length of the initial and extension HAP contract terms shall be those listed in the HAP contract (for existing projects: § 1(d) of Part 1 of the Form HUD–52530–B HUD and associated exhibits; for newly constructed and rehabilitated projects: § 1(e) of Part 1 of the Form HUD–52530–A and associated exhibits).

Type of Project Based Section 8 Contract

The following definitions apply consistent with 24 CFR 983.3(b), as amended by 82 FR 5458 (Jan. 18, 2017), 82 FR 32461 (Jul. 14, 2017):

a. *Existing Housing.* Housing units that already exist on the proposal selection date and that substantially comply with the Housing Quality Standards (HQS) on that date.

b. *Rehabilitated Housing.* Housing units that exist on the proposal selection date, but do not substantially comply with the Housing Quality Standards (HQS) on that date, and are developed, pursuant to an agreement between the PHA and owner, for use under the PBV program.

c. *Newly Constructed Housing.* Housing units that do not exist on the proposal selection date and are developed after the date of selection pursuant to an agreement between the PHA and owner for use under the PBV program. Upon amendment of 24 CFR 983.3(b), the new definitions therein will supersede the definitions listed here.

Is this a RAD HAP contract?

RAD PBV HAP Contract: A HAP contract for units in a post-conversion property in which assistance was converted from a non-PBV form of rental assistance to PBV under RAD (''Covered Project''), where the contract is for only those units converted to PBV under RAD (''RAD PBV units''). This includes a contract for RAD PBV units that are located in a Covered Project converted through a transfer of assistance.

Non-RAD PBV HAP Contract: A HAP contract for PBV units, none of which were converted to PBV under RAD (''non-RAD PBV units''). This includes a contract for non-RAD PBV units that are located within a property that also contains units that were converted under RAD.

Vacancy Payments Permitted?

Provide an answer (yes/no) to the question of whether the PHA has included the vacancy payment provision in this HAP contract (for existing projects: § 1(e)(2) of Part 1 of the Form HUD–52530–B HUD; for

newly constructed and rehabilitated projects: § 1(f)(2) of Part 1 of the Form HUD–52530–A).

Ownership Structure

The following definitions apply consistent with 24 CFR part 983, as amended by 82 FR 5458 (Jan. 18, 2017), 82 FR 32461 (Jul. 14, 2017):

a. PHA-owned:

—Owned by the PHA (which includes a PHA having a ''controlling interest'' in the entity that owns the unit);
—Owned; or
—Owned by a limited liability company (LLC) or limited partnership in which the PHA (or an entity wholly controlled by the PHA) holds a controlling interest in the managing member or general partner.

''Controlling interest'' means:

i. Holding more than 50 percent of the stock of any corporation;

ii. Having the power to appoint more than 50 percent of the members of the board of directors of a non-stock corporation (such as a non-profit corporation);

iii. Where more than 50 percent of the members of the board of directors of any corporation also serve as directors, officers, or employees of the PHA;

iv. Holding more than 50 percent of all managing member interests in an LLC;

v. Holding more than 50 percent of all general partner interests in a partnership; or

vi. Having equivalent levels of control in other ownership structures. Most ownership structures are already covered in the categories listed above. This last category is meant to cover any ownership structure not already listed in the categories above. Also, under this category (f), a PHA must have more than 50 percent control in that ownership structure (an equivalent level of control) for the project to be considered PHA-owned.

b. *PHA ownership interest but not PHA Owned:* An ownership interest means that the PHA or its officers, employees, or agents are in an entity that holds any direct or indirect interest in the project in which the units are located, including, but not limited to, an interest as:

—Titleholder;
—Lessee;
—Stockholder;
—Member, or general or limited partner; or
—Member of a limited liability corporation.

c. *Not PHA-Owned and No PHA Ownership interest:* The PHA does not own or has no ownership interest in the property.

Upon amendment of 24 CFR part 983, the new definitions therein will supersede the definitions listed above.

If PHA-Owned: Name of Independent Entity or Entities

If the project is PHA-Owned, the independent entity or entities which perform the following functions consistent with 24 CFR part 983: 1. Review the PHA's PBV selection process. 2. Establish PBV contract rents (initial rent to owner and redetermined rent to owner). 3. Determine rent reasonableness. 4. Provide a copy of the rent reasonableness determination to the PHA and the HUD field office where the project is located. 5. Establish term of initial and any renewal HAP contract as required in 24 CFR 983.205. 6. Inspect units. 7. Provide a copy of the inspection report to PHA and HUD field office where the project is located.

MTW PHAs with waivers may write in themselves as the independent entity.

Instructions: If user identifies the project as PHA-Owned then the user must list the independent entity(s).

Number of Total Units in the Project (PBV and Non-PBV Units)

Total number of units (PBV and non-PBV units) in the project, including those covered by an AHAP or HAP contract and non-contract units.

Number of Units Under HAP Contract by Bedroom Size

Total number of contract units in the project covered by the HAP contract, broken out by each bedroom size (0, 1, 2, 3, 4, 5+).

Number and Bedroom Distribution of PBV-Assisted Section 504 Units at the Project

This field captures the number of PBV-assisted units for each category listed below, broken out by each bedroom size (0, 1, 2, 3, 4, 5+), at the project that are accessible for persons with mobility impairments in accordance with Section 504 of the Rehabilitation Act of 1973 and HUD's implementing regulations at 24 CFR part 8.

- Section 504 Mobility Units
- Section 504 Hearing Vision Units
- Section 504 Mobility + Hearing Vision Units

Such units must meet either the Uniform Federal Accessibility Standards (UFAS) or 2010 Americans with Disabilities Act (ADA) Standards (in accordance with HUD's Deeming Notice published in the **Federal Register** on May 23, 2014 (79 FR 29671)).

Does an exception to the income mixing requirement apply?

Provide an answer (yes/no) to the question of whether the project qualifies for an exception to the income-mixing requirement under 24 CFR 983.56, and applicable guidance. Applicable program guidance includes, but is not limited to: 82 FR 5458 (Jan. 18, 2017), 82 FR 32461 (Jul. 14, 2017); 86 FR 53207 (Sept. 27, 2021); 87 FR 3570 (Jan. 24, 2022).

If Yes, Which Exceptions(s)

Choose the applicable exception from among those allowed by 24 CFR 983.56, as amended by 82 FR 5458 (Jan. 18, 2017), 82 FR 32461 (Jul. 14, 2017). The definitions of the exception categories are found in the following locations:

a. Units that are exclusively made available to households eligible for supportive services: PIH Notice 2017–21, Attachment E.

b. Units that are specifically made available for families receiving supportive services: PIH Notice 2017–21, Attachment E, for grandfathered projects as described therein.

c. Units that are exclusively made available to elderly families: PIH Notice 2017–21, Attachment E.

d. Units that are specifically made available for disabled families: PIH Notice 2017–21, Attachment E, for grandfathered projects as described therein.

e. Units located in a census tract with a poverty rate of 20 percent or less: PIH Notice 2017–21, Attachment E.

f. Units that were previously subject to certain federal rent restrictions or receiving another type of long-term housing subsidy provided by HUD: PIH Notice 2017–21, Attachment F, for projects that meet the additional requirements as described therein.

g. Units that are exclusively made available to eligible youth receiving FUP/FYI assistance: FR–6284–N–01.

h. HUD–VASH vouchers: 86 FR 53207 (Sept. 27, 2021). Upon amendment of 24 CFR part 983, the new definitions therein will supersede the definitions listed here.

i. *MTW Waiver Authority:* MTW agencies may increase PBV project caps under certain provisions of section 8(o)(13)(D) of the 1937 Act and 24 CFR 983.56(a)–(b), as superseded by HOTMA Implementation Notices at 82 FR 5458 and 82 FR 32461 (see implementation guidance in Notice PIH 2017–21). The standard agreement may also provide additional PBV flexibilities, including the ability to waive provisions in 24 CFR part 983.

Program cap exception?

Provide an answer (yes/no) to the question of whether the project qualifies for an exception to the program cap under 24 CFR 983.6, as amended by 82 FR 5458 (Jan. 18, 2017), 82 FR 32461 (Jul. 14, 2017).

If yes, under which category do they qualify?

Enter the number of excepted units from those allowed by 24 CFR 983.6, as amended by 82 FR 5458 (Jan. 18, 2017), 82 FR 32461 (Jul. 14, 2017). The definitions of the exception categories are found in the following locations:

○ Units that are specifically made available to house homeless individuals and families: PIH Notice 2017–21.

○ Units that are specifically made available to house families that are comprised of or include a veteran: PIH Notice 2017–21.

○ Units that provide supportive housing to persons with disabilities or to elderly persons: PIH Notice 2017–21.

○ Units located in a census tract with a poverty rate of 20 percent or less: PIH Notice 2017–21.

○ Units that were previously subject to certain federal rent restrictions or receiving another type of long-term housing subsidy provided by HUD: PIH Notice 2017–21, for projects that meet the additional requirements as described therein.

○ Units that house eligible youth receiving FUP/FYI assistance: FR–6284–N–01.

○ HUD–VASH vouchers specifically awarded by HUD for project-based assistance: PIH Notice 2017–21. Upon amendment of 24 CFR part 983, the new definitions therein will supersede the definitions listed here.

○ MTW Waiver Authority: MTW agencies may increase PBV program caps under certain provisions of section 8(o)(13)(B) of the 1937 Act and 24 CFR 983.6(a)-(b), as superseded by the Housing Opportunity through Modernization Act of 2016 (HOTMA) Implementation Notices at 82 FR 5458 and 82 FR 32461 (see implementation guidance in Notice PIH 2017–21). The standard agreement may also provide additional PBV flexibilities, including the ability to waive provisions in 2.

Annual Replacement Reserve Deposit Amount

Specified in the RCC, this is the required annual amount that is to be deposited into the project's replacement reserve account.

Annual Replacement Reserve Withdrawal Amount

The total amount of funds withdrawn from the project's replacement reserve account within a given year (12-month period) to fund capital repairs.

Ending Balance for the Replacement Reserve Account

The ending balance of the replacement reserve account after all transactions (withdrawals and deposits) in a given 12-month period are accounted for.

Replacement reserve deposits suspended/waived indicator?

Provide an answer (yes/no) to the question of whether a request to suspend/waive deposits to the replacement reserve was submitted by the Owner and approved by HUD for a given project.

Date replacement reserve deposits suspended/waived?

If the response to ''Replacement Reserve Deposits Suspended/Waived Indicator'' is ''yes'', provide the date HUD approved the request for replacement reserve deposits to be suspended/waived.

Burden Estimate

Respondents: Public housing authorities (PHAs) that have project-based vouchers (PBVs) as a part of their portfolio.

Estimated Number of Respondents: 819.

Estimated Number of Responses: 4,914.

Frequency of Response: 6.

Average Hours per Response: 1.5.

Total Estimated Burdens: 7,371.

Information collection	Number of respondents	Frequency of response	Responses per annum	Burden hour per response	Annual burden hours	Hourly cost per response	Annual cost
PBV Property Information	819	6	4,914	1.5	7,371	$44.71	$329,557

Our burden estimate for the number of respondents is based on a recent VMS total of the number of PHAs reporting PBVs in VMS and accounting for the subset of PBVs that are RAD. Specific to projects with a RAD PBV HAP Contract, the RAD Notice requires Project Owners to establish and maintain a replacement reserve in an interest-bearing account. At this time, there are approximately 1,200 projects with a RAD PBV HAP contract for which this requirement is applicable. To track the replacement reserve requirement, HUD is requesting PHA response to 3–5 questions for each project with a RAD PBV HAP Contract.

It is assumed PHAs will have to do a one-time submission for all the projects and potentially make updates when changes occur to the PBV projects (frequency of responses). It is anticipated that this cost will decline in subsequent years as PHAs will only need to make the following updates:

- Changes to HAP contract information already entered into the system for PBV projects; and
- Responses to 3–5 questions (as applicable) regarding the replacement reserve account for each RAD project where the PHA serves as a contract administrator.

The ''responses per annum'' represents an estimate of the amount of PBV projects that will need to be entered into the system. This number is multiplied by the frequency of responses to arrive at an annual estimate of burden hours. This is then multiplied by median average wage of a ''Management Analyst'' according to the Bureau of Labor Statistics for 2021 to arrive at a total annual cost.

B. Solicitation of Public Comment

This notice is soliciting comments from members of the public and affected parties concerning the collection of information described in Section A on the following:

(1) 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) The accuracy of the agency's estimate of the burden of the proposed collection of information;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) Ways to minimize the burden of the collection of information on those who are to respond; including through the use of appropriate automated collection techniques or other forms of

information technology, *e.g.,* permitting electronic submission of responses.

HUD encourages interested parties to submit comment in response to these questions.

C. Authority

Section 3507 of the Paperwork Reduction Act of 1995, 44 U.S.C. chapter 35.

Steven Durham,

Acting Chief, Office of Policy, Programs and Legislative Initiatives.

[FR Doc. 2023–09465 Filed 5–3–23; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–6389–N–01]

Section 184 Indian Housing Loan Guarantee Program; Reduction to the Upfront and Annual Loan Guarantee Fees

AGENCY: Office of the Assistant Secretary for Public and Indian Housing, HUD.

ACTION: Notice.

SUMMARY: The Section 184 Indian Housing Loan Guarantee program (''Section 184 program'') is a home mortgage program specifically designed for American Indian and Alaska Native families, Alaska villages, Tribes, or Tribally Designated Housing Entities. Congress established this program in 1992 to facilitate homeownership and increase access to capital in Native American communities. Based on the Section 184 program's strong performance and low default rate, HUD has determined that the fees charged to the borrower can be reduced without risk to the overall performance of the program. HUD is hereby exercising its authority to decrease the upfront loan guarantee fee from 1.50 to 1.00 percent and the annual loan guarantee fee from 0.25 to 0.00 percent for all new or updated Section 184 Firm Commitments as of the effective date of this Notice, including refinances.

DATES: *Applicable Date:* July 1, 2023.

FOR FURTHER INFORMATION CONTACT: Heidi J. Frechette, Deputy Assistant Secretary for Native American Programs, Office of Public and Indian Housing, Department of Housing and Urban Development, 451 7th Street SW, Room 4108, Washington, DC 20410; telephone number 202–401–7914 (this is not a toll-free number). HUD welcomes and is prepared to receive calls from individuals who are deaf or hard of hearing, as well as individuals with speech or communication disabilities. To learn more about how to make an accessible telephone call, please visit *https://www.fcc.gov/consumers/guides/telecommunications-relay-service-trs.*

SUPPLEMENTARY INFORMATION:

I. Background

Section 184 of the Housing and Community Development Act of 1992 (Pub. L. 102–550, approved October 28, 1992), as amended, established the Section 184 program to provide access to sources of private mortgage financing to Indian families, Indian housing authorities, and Indian tribes. Congress established this program in 1992 to facilitate homeownership and increase access to capital in Native American Communities. The Section 184 program addresses obstacles to mortgage financing on trust land and in other Indian and Alaska Native areas by giving HUD the authority to guarantee loans to eligible persons and entities to construct, acquire, refinance, or rehabilitate one- to four-family dwellings in these areas.

The Section 184 program is funded by a combination of annual appropriations and upfront and annual fees collected from the borrower. Program costs include amounts for claims, contracts, and other expenses related to foreclosure. To ensure the program has enough funding, pursuant to 12 U.S.C. 1715z–13a(d) and 24 CFR 1005.109, HUD has the authority to establish an upfront loan guarantee fee in an amount not exceeding 3.00 percent of the principal obligation of the loan and an annual loan guarantee fee in an amount not exceeding 1.00 percent of the remaining guaranteed balance.

On March 5, 2014, HUD issued a Notice increasing the upfront loan guarantee fee from 1.00 to 1.50 percent. (79 FR 12520). The new loan guarantee fee became effective on April 4, 2014.

On October 7, 2014, HUD issued a Notice exercising its statutory authority to implement an annual loan guarantee fee to the borrower in the amount of 0.15 percent. (79 FR 60492). The new annual loan guarantee fee became effective on November 15, 2014.

On November 1, 2016, HUD issued a second Notice increasing the annual loan guarantee fee from 0.15 to 0.25 percent. (81 FR 75836). The new annual loan guarantee fee became effective on December 1, 2016.

Since 2016, the Section 184 program has consistently experienced a very low default rate. Lenders are doing a better job of underwriting and servicing the loans, and Tribes continue to proactively provide housing counseling and support in an effort to keep Native American families in their homes. These factors have strengthened the financial performance of the Section 184 program. As a result, the program can support a reduction of loan guarantee fees to Native American borrowers without increasing financial risk to the Fund.

The reduction in fees will make Section 184 loans more affordable to Native American families and help remove barriers to private financial capital. Reducing the upfront and annual loan guarantee fees will have a positive financial impact on a typical borrower. Under the revised fee structure, the average family could save almost $5,700 over the course of the loan, which is a meaningful savings for an average Native American family.

II. Reduction of the Upfront and Annual Loan Guarantee Fee

This Notice reduces the Section 184 program upfront loan guarantee fee from 1.50 to 1.00 percent and the annual loan guarantee fee from 0.25 to 0.00 percent. This reduction will apply to all Section 184 program applicants receiving a new or updated Section 184 Firm Commitment as of the applicable date of this Notice, including refinances. This reduction will not apply to loans currently guaranteed by this program.

III. Environmental Impact

This Notice involves the establishment of a rate or cost determination that does not constitute a development decision affecting the physical condition of specific project areas or building sites. Accordingly, under 24 CFR 50.19(c)(6), this Notice is categorically excluded from environmental review under the National Environmental Policy Act of 1969 (U.S.C. 4321).

Dominique Blom,

General Deputy Assistant Secretary for Public and Indian Housing.

[FR Doc. 2023–09479 Filed 5–3–23; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–7075–N–05]

60-Day Notice of Proposed Information Collection: Application for Distressed Cities Technical Assistance NOFO; OMB Control No.: 2528–0326

AGENCY: Office of Policy Development and Research, HUD.

ACTION: Notice.

SUMMARY: HUD is seeking approval from the Office of Management and Budget (OMB) for the information collection described below. In accordance with the Paperwork Reduction Act, HUD is requesting comment from all interested parties on the proposed collection of information. The purpose of this notice is to allow for 60 days of public comment.

DATES: *Comments Due Date:* July 3, 2023.

ADDRESSES: Interested persons are invited to submit comments regarding this proposal.

Written comments and recommendations for the proposed information collection can be sent within 60 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 60-day Review—Open for Public Comments'' or by using the search function. Interested persons are also invited to submit comments regarding this proposal by name and/or OMB Control Number and can be sent to: Anna Guido, Reports Management Officer, REE, Department of Housing and Urban Development, 451 7th Street SW, Room 8210, Washington, DC 20410–5000; telephone 202–402–5535 (this is not a toll-free number) or email at *PaperworkReductionActOffice@hud.gov* for a copy of the proposed forms or other available information.

FOR FURTHER INFORMATION CONTACT: Anna Guido, Reports Management Officer, Department of Housing and Urban Development, 451 7th Street SW, Washington, DC 20410; email Anna Guido at *Anna.P.Guido@hud.gov,* telephone 202–402–5535 (this is not a toll-free number). HUD welcomes and is prepared to receive calls from individuals who are deaf or hard of hearing, as well as individuals with speech or communication disabilities. To learn more about how to make an accessible telephone call, please visit *https://www.fcc.gov/consumers/guides/telecommunications-relay-service-trs.*

Copies of available documents submitted to OMB may be obtained from Ms. Guido.

SUPPLEMENTARY INFORMATION: This notice informs the public that HUD is seeking approval from OMB for the information collection described in section A.

A. Overview of Information Collection

Title of Information Collection: Application for Distressed Cities Technical Assistance NOFO.

OMB Approval Number: 2528–0326.

Type of Request: Renewal of an existing collection.

Form Number: SF–424, SF–LLL, HUD–2880. HUD–424–B.

Description of the need for the information and proposed use: Application information is needed to determine the competition winners, *i.e.,* the technical assistance providers best able to help distressed communities adopt effective, efficient, and sustainable financial management practices, build capacity for financial management, economic revitalization, affordable housing, and disaster recovery, and improve knowledge of federal development programs.

Respondents: Organizations.

Estimated Number of Respondents: 10.

Estimated Time per Response: 44 hours.

Frequency of Response: 1.

Estimated Total Annual Burden Hours: 440 hours.

Estimated Total Annual Cost: $11,000.

Legal Authority: Section 3507 of the Paperwork Reduction Act of 1995, 44 U.S.C. chapter 35.

B. Solicitation of Public Comment

This notice is soliciting comments from members of the public and affected parties concerning the collection of information described in section A on the following:

(1) 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) The accuracy of the agency's estimate of the burden of the proposed collection of information;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected, and

(4) Ways to minimize the burden of the collection of information on those who are to respond; including through the use of appropriate automated collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses.

HUD encourages interested parties to submit comments in response to these questions.

C. Authority

Section 3507 of the Paperwork Reduction Act of 1995, 44 U.S.C. 3507.

Todd M. Richardson,

General Deputy Assistant Secretary for Policy Development and Research.

[FR Doc. 2023–09467 Filed 5–3–23; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF THE INTERIOR

Office of the Secretary

[DOI–2023–0004; 23XD4523WS, DS62200000, DWSN00000.000000, DP62205]

Privacy Act of 1974; System of Records

AGENCY: Office of the Secretary, Interior.

ACTION: Rescindment of a system of records notice.

SUMMARY: The Department of the Interior (Interior, Department) is issuing a public notice of its intent to rescind the Privacy Act system of records notice (SORN) for INTERIOR/DOI–88, Travel Management: FBMS, because agency travel program records are covered by two government-wide SORNs published by the General Services Administration (GSA). This rescindment will promote the overall streamlining and management of Interior's Privacy Act systems of records.

DATES: These changes take effect on May 4, 2023.

ADDRESSES: You may send comments identified by docket number [DOI–2023–0004] by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for sending comments.
- *Email: DOI_Privacy@ios.doi.gov.* Include docket number [DOI–2023–0004] in the subject line of the message.
- *U.S. mail or hand-delivery:* Teri Barnett, Departmental Privacy Officer, U.S. Department of the Interior, 1849 C Street NW, Room 7112, Washington, DC 20240.

Instructions: All submissions received must include the agency name and docket number [DOI–2023–0004]. All comments received will be posted without change to *https://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.*

You should be aware your entire comment including your personally identifiable information, such as your address, phone number, email address, or any other personal information in your comment, may be made publicly available at any time. While you may request to withhold your personally identifiable information from public review, we cannot guarantee we will be able to do so.

FOR FURTHER INFORMATION CONTACT: Teri Barnett, Departmental Privacy Officer, U.S. Department of the Interior, 1849 C

Street NW, Room 7112, Washington, DC 20240, *DOI_Privacy@ios.doi.gov* or (202) 208–1605.

SUPPLEMENTARY INFORMATION: Pursuant to the provisions of the Privacy Act of 1974, as amended, 5 U.S.C. 552a, Interior is rescinding the INTERIOR/DOI–88, Travel Management: FBMS, SORN and removing it from its inventory. During a routine review, the Department determined that agency travel program records are covered under two government-wide SORNs issued by the GSA: GSA/GOVT–3, Travel Charge Card Program, 78 FR 20108 (April 3, 2013); and GSA/GOVT–4, Contracted Travel Services Program, 74 FR 26700 (June 3, 2009), modification published June 12, 2009 (74 FR 28048). A government-wide system of records is a system of records where one agency has regulatory authority over the records in the custody of multiple agencies and that agency has the responsibility for publishing a SORN that applies to all of the records regardless of their custodial location. The two GSA government-wide SORNs cover all federal travel service programs and apply to the travel records maintained by the Department pursuant to federal travel regulations. Therefore, Interior will manage its travel program records under the GSA government-wide notices and is rescinding the INTERIOR/DOI–88, Travel Management: FBMS, SORN to avoid duplication of the existing government-wide SORNs in accordance with the Office of Management and Budget Circular A–108, *Federal Agency Responsibilities for Review, Reporting, and Publication under the Privacy Act.*

Rescinding the INTERIOR/DOI–88, Travel Management: FBMS, SORN will have no adverse impacts on individuals as the records are covered under the GSA/GOVT–3, Travel Charge Card Program, and GSA/GOVT–4, Contracted Travel Services Program, SORNs. This rescindment will also promote the overall streamlining and management of Interior's Privacy Act systems of records.

SYSTEM NAME AND NUMBER:

Interior, DOI–88, Travel Management: FBMS.

HISTORY:

73 FR 43769 (July 28, 2008), modification published 86 FR 50156 (September 7, 2021).

Teri Barnett,

Departmental Privacy Officer, Department of the Interior.

[FR Doc. 2023–09499 Filed 5–3–23; 8:45 am]

BILLING CODE 4334–63–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[BLM_AK_FRN_M045171095]

Filing of Plats of Survey: Alaska

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of official filing.

SUMMARY: The plats of survey of lands described in this notice are scheduled to be officially filed in the Bureau of Land Management (BLM), Alaska State Office, Anchorage, Alaska. The surveys, which were executed at the request of the Fish and Wildlife Service (FWS), Bureau of Indian Affairs (BIA), and BLM, are necessary for the management of these lands.

DATES: The BLM must receive protests by June 5, 2023.

ADDRESSES: You may buy a copy of the plats from the BLM Alaska Public Information Center, 222 W. 7th Avenue, Mailstop 13, Anchorage, AK 99513. Please use this address when filing written protests. You may also view the plats at the BLM Alaska Public Information Center, Fitzgerald Federal Building, 222 W. 7th Avenue, Anchorage, Alaska, at no cost.

FOR FURTHER INFORMATION CONTACT: Thomas O'Toole, Chief, Branch of Cadastral Survey, Alaska State Office, Bureau of Land Management, 222 W. 7th Avenue, Anchorage, AK 99513; 907–271–4231; *totoole@blm.gov*. People who use a telecommunications device for the deaf may call the Federal Relay Service (FRS) at 1–800–877–8339 to contact the BLM during normal business hours. The FRS is available 24 hours a day, 7 days a week, to leave a message or question with the above individual. You will receive a reply during normal business hours.

SUPPLEMENTARY INFORMATION: The lands surveyed are:

COPPER RIVER MERIDIAN, ALASKA

U.S. Survey No. 1896, accepted April 17, 2023, situated in T. 73 S., R. 86 E.
U.S. Survey No. 14026, accepted February 15, 2023, situated in T. 19 N., R. 12 E.
U.S. Survey No. 14119, accepted March 30, 2023, situated in T. 11 N., R. 22 E.

FAIRBANKS MERIDIAN, ALASKA

U.S. Survey No. 14562, accepted February 15, 2023, situated in T. 3 S., R. 28 E.
T. 33 N., R. 1 E., accepted February 8, 2023.
T. 4 N., R. 2 E., accepted February 8, 2023.
T. 27 N., R. 2 E., accepted February 8, 2023.
T. 1 N., R. 30 E., accepted February 27, 2023.
T. 2 N., R. 30 E., accepted February 27, 2023.
T. 1 S., R. 30 E., accepted February 27, 2023.
T. 1 S., R. 32 E., accepted February 27, 2023.
T. 31 N., R. 4 W., accepted February 8, 2023.

KATEEL RIVER MERIDIAN, ALASKA

U.S. Survey No. 5893, accepted February 8, 2023, situated in T. 18 N., Rs. 12 & 13 E.

SEWARD MERIDIAN, ALASKA

U.S. Survey No. 14499, accepted February 27, 2023, situated in T. 11 N., R. 78 W.
T. 31 S., R. 28 W., accepted February 9, 2023.

A person or party who wishes to protest one or more plats of survey identified above must file a written notice of protest with the State Director for the BLM in Alaska. The protest may be filed by mailing to BLM State Director, Alaska State Office, Bureau of Land Management, 222 W. 7th Avenue, Anchorage, AK 99513 or by delivering it in person to BLM Alaska Public Information Center, Fitzgerald Federal Building, 222 W. 7th Avenue, Anchorage, Alaska. The notice of protest must identify the plat(s) of survey that the person or party wishes to protest. You must file the notice of protest before the scheduled date of official filing for the plat(s) of survey being protested. The BLM will not consider any notice of protest filed after the scheduled date of official filing. A notice of protest is considered filed on the date it is received by the State Director for the BLM in Alaska during regular business hours; if received after regular business hours, a notice of protest will be considered filed the next business day. A written statement of reasons in support of a protest, if not filed with the notice of protest, must be filed with the State Director for the BLM in Alaska within 30 calendar days after the notice of protest is filed.

If a notice of protest against a plat of survey is received prior to the scheduled date of official filing, the official filing of the plat of survey identified in the notice of protest will be stayed pending consideration of the protest. A plat of survey will not be officially filed until the dismissal or resolution of all protests of the plat.

Before including your address, phone number, email address, or other personally identifiable information in a notice of protest or statement of reasons, you should be aware that the documents you submit, including your personally identifiable information, may be made publicly available in their entirety at any time. While you can ask the BLM to withhold your personally identifiable information from public review, we cannot guarantee that we will be able to do so.

Authority: 43 U.S.C. chap. 3.

Thomas O'Toole,

Chief Cadastral Surveyor, Alaska.

[FR Doc. 2023–09453 Filed 5–3–23; 8:45 am]

BILLING CODE 4331–10–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NRNHL–DTS#–35752; PPWOCRADI0, PCU00RP14.R50000]

National Register of Historic Places; Notification of Pending Nominations and Related Actions

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: The National Park Service is soliciting electronic comments on the significance of properties nominated before April 22, 2023, for listing or related actions in the National Register of Historic Places.

DATES: Comments should be submitted electronically by May 19, 2023.

ADDRESSES: Comments are encouraged to be submitted electronically to *National_Register_Submissions@nps.gov* with the subject line ''Public Comment on <property or proposed district name, (County) State>.'' If you have no access to email, you may send them via U.S. Postal Service and all other carriers to the National Register of Historic Places, National Park Service, 1849 C Street NW, MS 7228, Washington, DC 20240.

FOR FURTHER INFORMATION CONTACT: Sherry A. Frear, Chief, National Register of Historic Places/National Historic Landmarks Program, 1849 C Street NW, MS 7228, Washington, DC 20240, *sherry_frear@nps.gov,* 202–913–3763.

SUPPLEMENTARY INFORMATION:

The properties listed in this notice are being considered for listing or related actions in the National Register of Historic Places. Nominations for their consideration were received by the National Park Service before April 22, 2023. Pursuant to section 60.13 of 36 CFR part 60, comments are being accepted concerning the significance of the nominated properties under the National Register criteria for evaluation.

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.

Nominations submitted by State or Tribal Historic Preservation Officers:

Key: State, County, Property Name, Multiple Name (if applicable), Address/Boundary, City, Vicinity, Reference Number.

DISTRICT OF COLUMBIA

District of Columbia

National Geographic Society Headquarters, 1156 16th St. NW and 1145 17th St. NW, Washington, SG100009025

ILLINOIS

Will County

Will County Courthouse, 14 West Jefferson St., Joliet, SG100009005

INDIANA

Clark County

Clark-McKinley Historic District, (Residential Planning and Development in Indiana, 1940–1973 MPS), Roughly the east side of North Clark Blvd. and the west side of McKinley Ave. between, Francis and Brooks Aves., Clarksville, MP100009012

Patterson Place Historic District, (Historic Residential Suburbs in the United States, 1830–1960 MPS), Roughly bounded by Clark Blvd., Harrison, Sunset, Howard, and Stansifer Aves. Including each side of Patterson Ave., Clarksville, MP100009013

Delaware County

Forest Park Elementary School, (Indiana's Public Common and High Schools MPS), 2517 West 8th St., Muncie, MP100009020

Marion County

Engine House No. 23, 1002 Udell St., Indianapolis, SG100009019

Monroe County

Stipp-Bender Farm, 5075 South Victor Pike, Clear Creek vicinity, SG100009014

Shelby County

Clover Ford Iron Bridge, Blue River Memorial Park, 725 Lee Blvd., Shelbyville, SG100009015

MISSISSIPPI

Hinds County

Reddix, Dr. Jacob L., House, 1136 Valley St., Jackson, SG100009008

Stamp's Super Burgers, 1801 Dalton St., Jackson, SG100009009

Jones County

Lamar Elementary School, 400 15th St. West, Laurel, SG100009007

Sharkey County

Tucker House, 12862 US 61, Cary, SG100009021

OHIO

Lucas County

DeVilbiss Manufacturing Building, 300 Phillips Ave., Toledo, SG100009023

Muskingum County

Baker Brothers Wholesale Grocery, 8–12 East Main St., Zanesville, SG100009004

TEXAS

Bexar County

Dubuis Hall, 4301 Broadway St., San Antonio, SG100009010

VIRGINIA

Nottoway County

Crewe Commercial Historic District, Carolina and Virginia Aves., Carter, Powell, and Tyler Sts., Crewe, SG100009026

A request for removal has been made for the following resources:

INDIANA

Hamilton County

Carmel Monon Depot, 211 1st St. SW, Carmel, OT13000420

Newton County

McCairn-Turner House, 124 West Jasper St., Goodland, OT94000232

Wabash County

Manchester College Historic District, 604 College Ave., North Manchester, OT90001929

Authority: Section 60.13 of 36 CFR part 60.

Dated: April 26, 2023.

Sherry A. Frear,

Chief, National Register of Historic Places/National Historic Landmarks Program.

[FR Doc. 2023–09419 Filed 5–3–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035768; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: U.S. Department of the Interior, Bureau of Reclamation, Oklahoma-Texas Area Office, Oklahoma City, OK

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the U.S. Department of the Interior, Bureau of Reclamation (USBR) has completed an inventory of human remains and has determined that there is a cultural affiliation between the human remains and Indian Tribes or Native Hawaiian organizations in this notice. The human remains were removed from Caddo County, OK.

DATES: Repatriation of the human remains in this notice may occur on or after June 5, 2023.

ADDRESSES: Kate Ellison, USBR, 5924 NW 2nd Street, Suite 200, Oklahoma City, OK 73127, telephone (405) 470–4816, email *kellison@usbr.gov.*

SUPPLEMENTARY INFORMATION: This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA. The determinations in this notice are the sole responsibility of the USBR. The National Park Service is not responsible for the determinations in this notice. Additional information on the determinations in this notice, including the results of consultation, can be found in the inventory or related records held by the Museum of the Great Plains (MGP), a repository for the USBR.

Description

Between 1964 and 1972, human remains representing, at minimum, one individual were removed from Caddo County, OK. The human remains were found by a local person (Mr. Voerster) along the shoreline of Fort Cobb Reservoir and in proximity to archeological site 34CD697. The human remains were taken to the Oklahoma Archeological Survey in Norman, OK, where they were examined by archeologist Dr. Richard Drass and identified as part of a human cranium. The human remains are reasonably believed to have come into the possession of the Bureau of Reclamation around January 12, 2012, based on notes from the local collector. Since November 15, 2016, the human remains have been in the custody of the Museum of the Great Plains in Lawton, OK. On January 8, 2021, skeletal inventory and analysis were conducted by Rachel Perash, a contractor working for the Bureau of Reclamation. On July 6, 2022, additional analysis was conducted, by Dr. Peer Moore-Jansen, Chair and Professor of Anthropology at Wichita State University, who confirmed that the remains were human and archeological. No known individual was identified. No associated funerary objects are present.

Cultural Affiliation

The human remains in this notice are connected to one or more identifiable earlier groups, tribes, peoples, or cultures. There is a relationship of shared group identity between the identifiable earlier groups, tribes, peoples, or cultures and one or more Indian Tribes or Native Hawaiian organizations. The following types of information were used to reasonably trace the relationship: geographical and historical.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, the USBR has determined that:

- The human remains described in this notice represent the physical remains of one individual of Native American ancestry.
- There is a relationship of shared group identity that can be reasonably traced between the human remains described in this notice and the Wichita and Affiliated Tribes (Wichita, Keechi, Waco, & Tawakonie), Oklahoma.

Requests for Repatriation

Written requests for repatriation of the human remains in this notice must be sent to the Responsible Official identified in **ADDRESSES**. Requests for repatriation may be submitted by:

1. Any one or more of the Indian Tribes or Native Hawaiian organizations identified in this notice.

2. Any lineal descendant, Indian Tribe, or Native Hawaiian organization not identified in this notice who shows, by a preponderance of the evidence, that the requestor is a lineal descendant or a culturally affiliated Indian Tribe or Native Hawaiian organization.

Repatriation of the human remains in this notice to a requestor may occur on or after June 5, 2023. If competing requests for repatriation are received, the USBR must determine the most appropriate requestor prior to repatriation. Requests for joint repatriation of the human remains are considered a single request and not competing requests. The USBR is responsible for sending a copy of this notice to the Indian Tribe identified in this notice.

Authority: Native American Graves Protection and Repatriation Act, 25 U.S.C. 3003, and the implementing regulations, 43 CFR 10.9, § 10.10, and § 10.14.

Dated: April 25, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–09471 Filed 5–3–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035767; PPWOCRADN0–PCU00RP14.R50000]

Notice of Intent To Repatriate Cultural Items: University of Florida, Florida Museum of Natural History, Gainesville, FL

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the University of Florida, Florida Museum of Natural History (FLMNH) intends to repatriate certain cultural items that meet the definition of unassociated funerary objects and sacred objects and that have a cultural affiliation with the Indian Tribes or Native Hawaiian organizations in this notice. The cultural items were removed from near Big Cypress Swamp, Collier County, FL.

DATES: Repatriation of the cultural items in this notice may occur on or after June 5, 2023.

ADDRESSES: Catherine Smith, University of Florida, Florida Museum of Natural History, 1659 Museum Road, Gainesville, FL 32611, telephone (352) 273–1921, email *smithcatherine@floridamuseum.ufl.edu.*

SUPPLEMENTARY INFORMATION: This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA. The determinations in this notice are the sole responsibility of FLMNH. The National Park Service is not responsible for the determinations in this notice. Additional information on the determinations in this notice, including the results of consultation, can be found in the summary or related records held by FLMNH.

Description

The 29 cultural items were removed from near Big Cypress Swamp in Collier County, FL. These cultural items originally belonged to an unidentified Seminole warrior but were taken by Captain Winston J.T. Stephens, commander of a company of Florida Mounted Volunteers, in the Big Cypress Swamp on December 3, 1857, after he shot and killed the man in a skirmish between his company and a group of ''Indians'' during the Third Seminole War. The account was both orally passed down through the Stephens family and documented in a journal kept by Captain Stephens. FLMNH (called the Florida State Museum at the

time) acquired these cultural items from a descendent of Captain Stephens as a private donation on 10/12/1975. These items were accessioned to the FLMNH anthropology division as the Stephens Collection (Acc.# 75–81) within the general ethnography collection then incorporated into the Florida Ethnographic Collections upon its establishment. The six unassociated funerary objects include the Seminole warrior's belongings currently held by FLMNH. The 23 sacred objects include items used in traditional Seminole ceremonies, which were also in the possession of the Seminole warrior at time of death.

Cultural Affiliation

The cultural items in this notice are connected to one or more identifiable earlier groups, tribes, peoples, or cultures. There is a relationship of shared group identity between the identifiable earlier groups, tribes, peoples, or cultures and one or more Indian Tribes or Native Hawaiian organizations. The following types of information were used to reasonably trace the relationship: historical, oral tradition, and geographical location.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, the FLMNH has determined that:

- The six cultural items described above are reasonably believed to have been placed with or near individual human remains at the time of death or later as part of the death rite or ceremony and are believed, by a preponderance of the evidence, to have been removed from a specific burial site of a Native American individual.
- The 23 cultural items described above are specific ceremonial objects needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents.
- There is a relationship of shared group identity that can be reasonably traced between the cultural items and the Seminole Tribe of Florida.

Requests for Repatriation

Additional, written requests for repatriation of the cultural items in this notice must be sent to the Responsible Official identified in **ADDRESSES**. Requests for repatriation may be submitted by any lineal descendant, Indian Tribe, or Native Hawaiian organization not identified in this notice who shows, by a preponderance of the evidence, that the requestor is a lineal descendant or a culturally affiliated Indian Tribe or Native Hawaiian organization.

Repatriation of the cultural items in this notice to a requestor may occur on or after June 5, 2023. If competing requests for repatriation are received, FLMNH must determine the most appropriate requestor prior to repatriation. Requests for joint repatriation of the cultural items are considered a single request and not competing requests. FLMNH is responsible for sending a copy of this notice to the Indian Tribe identified in this notice.

Authority: Native American Graves Protection and Repatriation Act, 25 U.S.C. 3003, and the implementing regulations, 43 CFR 10.8, 10.10, and 10.14.

Dated: April 25, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–09470 Filed 5–3–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035769; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Illinois State Museum, Springfield, IL

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the Illinois State Museum has completed an inventory of human remains and associated funerary objects and has determined that there is a cultural affiliation between the human remains and associated funerary objects and Indian Tribes or Native Hawaiian organizations in this notice. The human remains and associated funerary objects were removed from northwest Arkansas.

DATES: Repatriation of the human remains and associated funerary objects in this notice may occur on or after June 5, 2023.

ADDRESSES: Brooke M. Morgan, Illinois State Museum Research & Collections Center, 1011 East Ash Street, Springfield, IL 62701, telephone (217) 785–8930, email *brooke.morgan@illinois.gov.*

SUPPLEMENTARY INFORMATION: This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA. The determinations in this notice are the sole responsibility of the Illinois State Museum. The National Park Service is not responsible for the determinations in this notice. Additional information on the determinations in this notice, including the results of consultation, can be found in the inventory or related records held by the Illinois State Museum.

Description

Sometime prior to 1940, human remains representing, at minimum, one individual were removed from a dry bluff shelter in northwest Arkansas. These human remains were purchased by Ralph Foster and subsequently donated to the Ralph Foster Museum at College of the Ozarks. In 1990, the human remains were transferred to the Illinois State Museum. The four associated funerary objects are two twined garments or blankets, one lot of plant remains, and one lot of sorted burial matrix. Based on similar sites, this interment might date to the Late Woodland or Mississippian period (A.D. 500–1400).

On an unknown date, human remains representing, at minimum, one individual were removed from a bluff shelter in northwest Arkansas. In 1971, these human remains were donated to the Ralph Foster Museum at College of the Ozarks, and in 1998, they were transferred to the Illinois State Museum. No associated funerary objects are present.

Cultural Affiliation

The human remains and associated funerary objects in this notice are connected to one or more identifiable earlier groups, tribes, peoples, or cultures. There is a relationship of shared group identity between the identifiable earlier groups, tribes, peoples, or cultures and one or more Indian Tribes or Native Hawaiian organizations. The following types of information were used to reasonably trace the relationship: anthropological, archeological, geographical, historical, and oral traditional.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, the Illinois State Museum has determined that:

- The human remains described in this notice represent the physical remains of two individuals of Native American ancestry.
- The four objects described in this notice are reasonably believed to have

been placed with or near individual human remains at the time of death or later as part of the death rite or ceremony.

• There is a relationship of shared group identity that can be reasonably traced between the human remains and associated funerary objects described in this notice and The Osage Nation.

Requests for Repatriation

Written requests for repatriation of the human remains and associated funerary objects in this notice must be sent to the Responsible Official identified in **ADDRESSES**. Requests for repatriation may be submitted by:

1. Any one or more of the Indian Tribes or Native Hawaiian organizations identified in this notice.

2. Any lineal descendant, Indian Tribe, or Native Hawaiian organization not identified in this notice who shows, by a preponderance of the evidence, that the requestor is a lineal descendant or a culturally affiliated Indian Tribe or Native Hawaiian organization.

Repatriation of the human remains and associated funerary objects in this notice to a requestor may occur on or after June 5, 2023. If competing requests for repatriation are received, the Illinois State Museum must determine the most appropriate requestor prior to repatriation. Requests for joint repatriation of the human remains and associated funerary objects are considered a single request and not competing requests. The Illinois State Museum is responsible for sending a copy of this notice to the Indian Tribe identified in this notice.

Authority: Native American Graves Protection and Repatriation Act, 25 U.S.C. 3003, and the implementing regulations, 43 CFR 10.9, § 10.10, and § 10.14.

Dated: April 25, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–09472 Filed 5–3–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035766; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: University of Wyoming Human Remains Repository, Laramie, WY

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the University of Wyoming Human Remains Repository has completed an inventory of human remains and associated funerary objects and has determined that there is no cultural affiliation between the human remains and associated funerary objects and any Indian Tribe. The human remains and associated funerary objects were removed from Bighorn, Campbell, Carbon, Fremont, Hot Springs, Johnson, Park, Sheridan, and Washakie Counties and other unknown locations in Wyoming or possibly southern Montana.

DATES: Disposition of the human remains and associated funerary objects in this notice may occur on or after June 5, 2023.

ADDRESSES: Dr. Rick L. Weathermon, University of Wyoming Human Remains Repository, 1000 E. University Avenue, Dept 3431, Laramie, WY 82071, telephone (307) 766–5136, email *rikw@uwyo.edu.*

SUPPLEMENTARY INFORMATION: This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA. The determinations in this notice are the sole responsibility of the University of Wyoming Human Remains Repository. The National Park Service is not responsible for the determinations in this notice. Additional information on the determinations in this notice, including the results of consultation, can be found in the inventory or related records held by the University of Wyoming (UW) Human Remains Repository.

Description

In the 1960s, human remains representing, at minimum, one individual were removed from site 48WA11, west of the No Wood River in Washakie County, WY, by a private individual. The human remains were transferred to the UW Anthropology Department in 1967. The fragmentary human remains (HR003) represent a female Native American 40–50 years of age. No associated funerary objects were recovered.

In the 1980s, human remains representing, at minimum, one individual were removed from the Laddie Creek site 48BH345 on private ground in Bighorn County, WY, by personnel of the UW Department of Anthropology during backhoe trenching. The fragmentary human remains (HR054) represent a Native American adult male. The human remains are probably Late Plains Archaic (3,500–1,500 years RCYBP), based on stratigraphic information. No associated funerary objects were recovered.

In 1989, human remains representing, at minimum, one individual were removed from private ground at the Shamrock Hills site 48CR4865 in the Great Divide Basin of Carbon County, WY, by the State Archaeologist's Office at the request of the landowner. The fragmentary human remains (HR153) represent a 60+ year old Native American male. No associated funerary objects were recovered.

In the 1980s, human remains representing, at minimum, one individual were removed from the D.O. Bead site 48CR4805 in Carbon County, WY, by personnel of the State Archaeologist's Office at the request of the landowner. The fragmentary human remains represent a probable Native American of unknown age and sex (HR154). The human remains are protohistoric in age based on the associated trade goods. The one associated funerary object is one lot of glass trade beads.

In 1972, human remains representing, at minimum, one individual were removed from an unknown location along Sand Creek in the Rawlins Uplift in Carbon County, WY, by a private individual. The human remains were later given to the UW Anthropology Department. The fragmentary human remains (HR199) represent a 60+ year old Native American male. No associated funerary objects were recovered.

Prior to 1982, human remains representing, at minimum, one individual were removed from an unknown location in Fremont County, WY, by the coroner. In 1982, the human remains were transferred to the UW Anthropology Department. The fragmentary human remains (HR089) represent a 15–17 year old Native American of unknown sex. No associated funerary objects were recovered.

Prior to 1980, human remains representing, at minimum, one individual were removed from an unknown location on Mexican Creek in the Wind River Mountains, Fremont County, WY, by a private individual. In the 1980s, the human remains were transferred to the UW Anthropology Department. The fragmentary human remains (HR167) represent a 35+ year old Native American of unknown sex. The human remains are protohistoric based on notes. No associated funerary objects were recovered.

Prior to 1982, human remains representing, at minimum, one individual were removed from an

unknown location along the East Fork River, Fremont County, WY, by the coroner. In 1982, the human remains were transferred to the UW Anthropology Department. The fragmentary human remains (FC041) represent a 40–60 year old Native American of unknown sex. No associated funerary objects were recovered.

In 1973, human remains representing, at minimum, one individual were removed from an unknown location in Hot Springs County, WY, by law enforcement. The human remains were later transferred to the UW Anthropology Department. The fragmentary human remains (FC003) represent an 11–12 year old male Native American. No associated funerary objects were recovered.

In the 1960s or 1970s, human remains representing, at minimum, nine individuals were removed from an unknown location along the future route of Interstate 90 north of Buffalo, Johnson County, WY, during construction by Wyoming Archaeological Society. The human remains were later transferred to the UW Anthropology Department in the 1970s. The fragmentary human remains include a Native American male, 65+ years (HR032); a Native American male, 65+ years of age (HR033); a Native American male, 65+ years (HR034); a Native American male, 65+ years of age (HR035); a Native American child, unknown sex, 9–11 years (HR036); a Native American child, 11–13 years of age, possibly male (HR037); a Native American child about 18 months of age, sex unknown (HR039); a Native American infant, sex unknown, age 0–6 months (HR040); and a Native American infant, sex unknown, age 0–6 months (HR041). No associated funerary objects were recovered.

In the 1960s or 1970s, human remains representing, at minimum, four individuals were removed from an unknown location on the Cash Ranch west of Kaycee, Johnson County, WY, by an unknown individual. The human remains were given to the Wyoming State Museum and transferred to the UW Anthropology Department in the 1982. The fragmentary human remains include a Native American female, 24+ years of age (HR098); a Native American based on museum notes, sex unknown, 15+ years of age (HR099); a Native American based on museum notes, sex unknown, under 18 years (HR100); and a Native American based on museum notes, neonate, sex unknown (HR101). The one associated funerary object is a shaped belemnite fossil, possibly associated with HR098 based on museum notes. The object is currently missing, but, if found, will be transferred with the other cultural items in this notice.

In 1980, human remains representing, at minimum, one individual were removed from an unknown location near Kaycee in Johnson County, WY, by law enforcement. The human remains were transferred to the UW Anthropology Department. The fragmentary human remains (FC024) represent a female Native American 50+ years of age. No associated funerary objects were recovered.

In 1976, human remains representing, at minimum, one individual were removed from an unknown construction location on private ground in Park County, WY, by BLM personnel. The human remains were transferred to the UW Anthropology Department. The fragmentary human remains (HR042) represent a male Native American 17+ years of age. No associated funerary objects were recovered.

In the 1940s, human remains representing, at minimum, one individual were removed from Hargreave's Flat on private ground about nine miles north of Cody, Park County, WY, by Work Projects Administration crew. The human remains have been at the UW Anthropology Department since the early 1970s. The fragmentary human remains (HR046) represent a Native American child 11–13 years of age. The three associated funerary objects are one clam shell fragment, one gypsum fragment, and one dog foot bone.

In the 1960s or 1970s, human remains representing, at minimum, four individuals were removed from site 48SH30 on private ground along Fence Creek, south of Arvada, Sheridan County, WY, by an unknown individual following disturbances due to oil drilling. The human remains were transferred to the UW Anthropology Department in the early 1970s. The fragmentary human remains include a Native American female, 60+ years (HR008a); a probably Native American female, 35–50 years (HR008b); a probable Native American child, age 18–30 months of age (HR008c); and a probable Native American, sex unknown, about 12 years of age (HR008d). The three associated funerary objects are one Late Prehistoric arrow point, one lot of debitage, and one lot of faunal bone.

In 1972, human remains representing, at minimum, five individuals were removed from site 48WA12 on private ground along the west face of the Big Horn Mountains, Washakie County, WY, by University of Wyoming personnel. The human remains have been at the UW Anthropology Department since 1972. The fragmentary human remains include a Native American male, about 25 years of age (HR029); a Native American adult male (HR030); a Native American adult male (HR031a); a probable Native American child, age 7–8 years of age (HR031b); and a probable Native American adult of unknown sex (HR031c). The five associated funerary objects are one lot of reed beads, one lot of red ocher, one lot of bone tool fragments, one lot of wood, and one shell pendant.

Prior to 1982, human remains representing, at minimum, one individual were removed from an unknown location in Ten Sleep Canyon, Washakie County, WY, by a private individual. The human remains were given to the Fort Casper Museum in 1983 and transferred to the UW Anthropology Department in 1993. The fragmentary human remains (HR191) represent a possible Native American (based on museum notes), child, age 1–2 years. No associated funerary objects were recovered.

Prior to 1983, human remains representing, at minimum, one individual were removed from an unknown location in WY by a private individual. The human remains were given to the Wyoming State Museum prior to 1983 and transferred to the UW Anthropology Department in 1993. The fragmentary human remains (HR102) represent Native American adult male. No associated funerary objects were recovered.

Prior to 1983, human remains representing, at minimum, one individual were removed from an unknown location in WY by a private individual. The human remains were given to the Wyoming State Museum prior to 1983 and transferred to the UW Anthropology Department in 1993. The fragmentary human remains represent a possible Native American (HR107), sex unknown, 14–18 years of age. No associated funerary objects were recovered.

Prior to 1983, human remains representing, at minimum, one individual were removed from an unknown location in southeast WY by a private individual. The human remains were given to the Wyoming State Museum prior to 1983 and transferred to the UW Anthropology Department in 1993. The fragmentary human remains represent a possible Native American (HR108) child, six-12 months of age. No associated funerary objects were recovered.

Prior to 1983, human remains representing, at minimum, one individual were removed from an

unknown location in WY by a private individual. The human remains were given to the Wyoming State Museum prior to 1983 and transferred to the UW Anthropology Department in 1993. The fragmentary human remains represent a possible Native American (HR109), sex unknown, 15–22 years of age. No associated funerary objects were recovered.

Prior to 1992, human remains representing, at minimum, one individual were removed from an unknown location in WY by a private individual. The human remains were given to the Pioneer Museum in Douglas, Converse County, WY, prior to 1992 and transferred to the UW Anthropology Department in 1992. The fragmentary human remains represent a possible Native American (HR190), male, adult in age. No associated funerary objects were recovered.

Prior to 1992, human remains representing, at minimum, one individual were removed from an unknown location in WY by a private individual. The human remains were given to Fort Caspar Museum at an unknown time and transferred to the UW Anthropology Department in 1993. The fragmentary human remains represent a possible Native American (HR196), sex unknown, older adult in age. No associated funerary objects were recovered.

Prior to mid-1980s, human remains representing, at minimum, three individuals were removed from private lands around Buffalo, Johnson County, and Sheridan, Sheridan County, WY, and Bighorn County, MT, by a private individual. The human remains were given to the UW Anthropology Department in in the mid-1980s. The fragmentary human remains include a possible Native American male, adult in age (HR218a); a possibly Native American, possibly male, adult in age (HR218b); and a possible Native American, possibly male, adult in age (HR218c). No associated funerary objects were recovered.

Prior to 1972, human remains representing, at minimum, one individual were removed from an unknown location in WY by an unknown individual. The fragmentary human remains were subsequently collected at the Worland Dump near Worland, Washakie County, WY, by local law enforcement and transferred to the UW Anthropology Department in 1972. The fragmentary human remains represent a possible Native American (FC001) male, over 30 years of age. No associated funerary objects were recovered.

In 1985, human remains representing, at minimum, one individual were removed from an unknown location in WY by law enforcement. The human remains were sent to the Wyoming State crime lab and subsequently transferred to the UW Anthropology Department in 1985. The fragmentary human remains represent a Native American (FC068) male, over 30 years of age. No associated funerary objects were recovered.

In 1986, human remains representing, at minimum, one individual were removed from an unknown location in WY by law enforcement. The human remains were sent to the Wyoming State Crime Lab and subsequently transferred to the UW Anthropology Department in 1986. The fragmentary human remains represent a Native American (FC076) male, 40 to 55 years of age. No associated funerary objects were recovered.

In 1992, human remains representing, at minimum, one individual were removed from an unknown location in WY by law enforcement. The human remains were sent to the Wyoming State Crime Lab and subsequently transferred to the UW Anthropology Department in 1992. The fragmentary human remains represent a Native American (FC098) male, 50 to 60 years of age. No associated funerary objects were recovered.

Prior to 1996, human remains representing, at minimum, one individual were removed from an unknown location on the Bishop Ranch in Campbell County, WY, by unknown individuals. The human remains were given to the Rockpile Museum in Gillette, WY, and subsequently transferred to the UW Anthropology Department in 1996. The fragmentary human remains represent a Native American (DB055) female, 20 to 25 years of age. No associated funerary objects were recovered.

In the 1950s or before, human remains representing, at minimum, one individual were removed from an unknown location in WY by unknown individuals. The human remains were given to the Pioneer Museum in Douglas, Converse County, WY, and subsequently transferred to the UW Anthropology Department in 1997. The fragmentary human remains represent a Native American (HR225) female, 17 to 20 years of age. No associated funerary objects were recovered.

In 1986, human remains representing, at minimum, four individuals were removed from private lands in the Green-Phipps site (48PA911), Park County, WY, by UW and the State Archaeologist's Office. The human remains were originally listed as coming from BLM ground, but further investigation places them a few feet into private lands. The human remains have been at the UW Anthropology Department since 1986. The fragmentary human remains represent a Native American male, 50+ years of age (HR134a); a Native American of unknown sex, 14–17 years of age (HR134b); a Native American of unknown sex, 5 to 10 years of age (HR134c); and a Native American of unknown sex, 18–24 years of age (HR134d). The 82 associated funerary objects are 60 pieces of debitage, one projectile point, 20 stone or bone beads, and one lot of unidentified faunal remains.

Aboriginal Land

The human remains and associated funerary objects in this notice were removed from known geographic locations. These locations are the aboriginal lands of one or more Indian Tribes. The following information was used to identify the aboriginal land: a final judgment of the Indian Claims Commission, a treaties, Acts of Congress, and Executive Orders.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes, the University of Wyoming Human Remains Repository has determined that:

- The human remains described in this notice represent the physical remains of 54 individuals of Native American ancestry.
- The 95 objects described in this notice are reasonably believed to have been placed with or near individual human remains at the time of death or later as part of the death rite or ceremony.
- No relationship of shared group identity can be reasonably traced between the human remains and associated funerary objects and any Indian Tribe.
- The human remains and associated funerary objects described in this notice were removed from the aboriginal land of the Apache Tribe of Oklahoma; Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana; Blackfeet Tribe of the Blackfeet Indian Reservation of Montana; Cheyenne and Arapaho Tribes, Oklahoma; Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota; Comanche Nation, Oklahoma; Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota; Crow Tribe of Montana; Fort Belknap Indian Community of the Fort Belknap Reservation of Montana;

Keweenaw Bay Indian Community, Michigan; Lower Brule Sioux Tribe of the Lower Brule Reservation, South Dakota; Nez Perce Tribe; Northern Arapaho Tribe of the Wind River Reservation, Wyoming; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Oglala Sioux Tribe; Rosebud Sioux Tribe of the Rosebud Indian Reservation, South Dakota; Santee Sioux Nation, Nebraska; Shoshone-Bannock Tribes of the Fort Hall Reservation; Standing Rock Sioux Tribe of North & South Dakota; Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota; and the White Mountain Apache Tribe of the Fort Apache Reservation, Arizona.

Requests for Disposition

Written requests for disposition of the human remains and associated funerary objects in this notice must be sent to the Responsible Official identified in **ADDRESSES**. Requests for disposition may be submitted by:

1. Any one or more of the Indian Tribes identified in this notice.

2. Any lineal descendant, Indian Tribe, or Native Hawaiian organization not identified in this notice who shows, by a preponderance of the evidence, that the requestor is a lineal descendant or a culturally affiliated Indian Tribe or Native Hawaiian organization, or who shows that the requestor is an aboriginal land Indian Tribe.

Disposition of the human remains and associated funerary objects described in this notice to a requestor may occur on or after June 5, 2023. After that date, if no additional requestors have come forward, transfer of control of the human remains and associated funerary objects to the Northern Arapaho Tribe of the Wind River Reservation, Wyoming, may proceed. If competing requests for disposition are received, the University of Wyoming Human Remains Repository must determine the most appropriate requestor prior to disposition. Requests for joint disposition of the human remains and associated funerary objects are considered a single request and not competing requests. The University of Wyoming Human Remains Repository is responsible for sending a copy of this notice to the Indian Tribes identified in this notice.

Authority: Native American Graves Protection and Repatriation Act, 25 U.S.C. 3003, and the implementing regulations, 43 CFR 10.9 and § 10.11.

Dated: April 25, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–09469 Filed 5–3–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035772; PPWOCRADN0–PCU00RP14.R50000]

Notice of Intent To Repatriate Cultural Items: U.S. Army Corps of Engineers, Savannah District, Savannah, GA

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the U.S. Army Corps of Engineers, Savannah District, intends to repatriate certain cultural items that meet the definition of unassociated funerary objects and that have a cultural affiliation with the Indian Tribes or Native Hawaiian organizations in this notice. The cultural items were removed from Columbia County, GA.

DATES: Repatriation of the cultural items in this notice may occur on or after June 5, 2023.

ADDRESSES: Mr. Rodney Parker, Regulatory Archeologist and District Tribal Liaison, U.S. Army Corps of Engineers, Savannah District, 100 W Oglethorpe Avenue, Savannah, GA 31401, telephone (912) 652–5964, email *Rodney.D.Parker@usace.army.mil.*

SUPPLEMENTARY INFORMATION: This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA. The determinations in this notice are the sole responsibility of the U.S. Army Corps of Engineers, Savannah District. The National Park Service is not responsible for the determinations in this notice. Additional information on the determinations in this notice, including the results of consultation, can be found in the summary or related records held by the U.S. Army Corps of Engineers, Savannah District.

Description

Thirteen cultural items were removed from Columbia County, GA. Between 1948–1951, the National Park Service's River Basin Survey conducted archeological investigations at the Lake Springs Village site (9CB22), which is located within the former Clark's Hill Lake, today, Thurmond Lake. Subsequent excavations were conducted at this site by the Smithsonian Institution on behalf of the Savannah District in response to the imminent construction of Thurmond Lake. (Additional cultural objects and human remains removed from this site are housed at the Smithsonian Institution and are under its control.) The 13 unassociated funerary objects are two incised bone pendants, four worked bone fragments, two incised bones, one atlatl fragment/weight, one bear tooth pendant, two ceramic polishing stones, and one undrilled soapstone atlatl weight.

Cultural Affiliation

The cultural items in this notice are connected to one or more identifiable earlier groups, tribes, peoples, or cultures. There is a relationship of shared group identity between the identifiable earlier groups, tribes, peoples, or cultures and one or more Indian Tribes or Native Hawaiian organizations. The following types of information were used to reasonably trace the relationship: anthropological, archeological, biological, geographical, historical, other relevant information, and expert opinion.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, the U.S. Army Corps of Engineers, Savannah District, has determined that:

- The 13 cultural items described above are reasonably believed to have been placed with or near individual human remains at the time of death or later as part of the death rite or ceremony and are believed, by a preponderance of the evidence, to have been removed from a specific burial site of a Native American individual.
- There is a relationship of shared group identity that can be reasonably traced between the cultural items and The Muscogee (Creek) Nation.

Requests for Repatriation

Additional, written requests for repatriation of the cultural items in this notice must be sent to the Responsible Official identified in **ADDRESSES**. Requests for repatriation may be submitted by any lineal descendant, Indian Tribe, or Native Hawaiian organization not identified in this notice who shows, by a preponderance of the evidence, that the requestor is a lineal descendant or a culturally affiliated Indian Tribe or Native Hawaiian organization.

Repatriation of the cultural items in this notice to a requestor may occur on or after June 5, 2023. If competing requests for repatriation are received, the U.S. Army Corps of Engineers, Savannah District, must determine the most appropriate requestor prior to repatriation. Requests for joint repatriation of the cultural items are considered a single request and not competing requests. The U.S. Army Corps of Engineers, Savannah District, is responsible for sending a copy of this notice to the Indian Tribe identified in this notice.

Authority: Native American Graves Protection and Repatriation Act, 25 U.S.C. 3003, and the implementing regulations, 43 CFR 10.8, § 10.10, and § 10.14.

Dated: April 25, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–09476 Filed 5–3–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035771; PPWOCRADN0–PCU00RP14.R50000]

Notice of Intent To Repatriate Cultural Items: Gilcrease Museum, Tulsa, OK

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the Gilcrease Museum intends to repatriate certain cultural items that meet the definition of unassociated funerary objects, sacred objects, and objects of cultural patrimony and that have a cultural affiliation with the Indian Tribes or Native Hawaiian organizations in this notice. The cultural items were removed from unknown locations.

DATES: Repatriation of the cultural items in this notice may occur on or after June 5, 2023.

ADDRESSES: Laura Bryant, Gilcrease Museum, 800 S. Tucker Drive, Tulsa, OK 74104, telephone (918) 596–2747, email *laura-bryant@utulsa.edu.*

SUPPLEMENTARY INFORMATION: This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA. The determinations in this notice are the sole responsibility of the Gilcrease Museum. The National Park Service is not responsible for the determinations in this notice. Additional information on the determinations in this notice, including the results of consultation, can be found in the summary or related records held by the Gilcrease Museum.

Description

Three cultural items were removed from unknown locations. Museum records do not provide details regarding the original acquisition of these items, except to note that two of them were donated to the Gilcrease Museum by different collectors who primarily collected in the latter half of the 20th century, and that one of them was purchased by Thomas Gilcrease in 1950 from Emil Lenders, an artist who traveled around the country at the turn of the 20th century. The three sacred objects and objects of cultural patrimony are pipe bags.

Six cultural items were removed from unknown locations. Museum records do not provide details regarding the original acquisition of these items, except to note that six of them were donated to the Gilcrease Museum by a collector who primarily collected in the latter half of the 20th century. The six unassociated funerary objects are pipe bags.

Cultural Affiliation

The cultural items in this notice are connected to one or more identifiable earlier groups, tribes, peoples, or cultures. There is a relationship of shared group identity between the identifiable earlier groups, tribes, peoples, or cultures and one or more Indian Tribes or Native Hawaiian organizations. The following types of information were used to reasonably trace the relationship: anthropological, historical, and oral traditional.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, the Gilcrease Museum has determined that:

- Six of the cultural items described above are reasonably believed to have been placed with or near individual human remains at the time of death or later as part of the death rite or ceremony and are believed, by a preponderance of the evidence, to have been removed from a specific burial site of a Native American individual.
- Three of the cultural items described above both are specific ceremonial objects needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents and have ongoing historical, traditional, or cultural importance central to the Native American group or culture itself, rather than property owned by an individual.
- There is a relationship of shared group identity that can be reasonably traced between the cultural items and the Cheyenne and Arapaho Tribes, Oklahoma.

Requests for Repatriation

Additional, written requests for repatriation of the cultural items in this notice must be sent to the Responsible Official identified in **ADDRESSES**. Requests for repatriation may be submitted by any lineal descendant, Indian Tribe, or Native Hawaiian organization not identified in this notice who shows, by a preponderance of the evidence, that the requestor is a lineal descendant or a culturally affiliated Indian Tribe or Native Hawaiian organization.

Repatriation of the cultural items in this notice to a requestor may occur on or after June 5, 2023. If competing requests for repatriation are received, the Gilcrease Museum must determine the most appropriate requestor prior to repatriation. Requests for joint repatriation of the cultural items are considered a single request and not competing requests. The Gilcrease Museum is responsible for sending a copy of this notice to the Indian Tribe identified in this notice.

Authority: Native American Graves Protection and Repatriation Act, 25 U.S.C. 3003, and the implementing regulations, 43 CFR 10.8, § 10.10, and § 10.14.

Dated: April 25, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–09474 Filed 5–3–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035773; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: U.S. Army Corps of Engineers, Savannah District, Savannah, GA

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the U.S. Army Corps of Engineers, Savannah District, has completed an inventory of human remains and associated funerary objects and has determined that there is a cultural affiliation between the human

remains and associated funerary objects and Indian Tribes or Native Hawaiian organizations in this notice. The human remains and associated funerary objects were removed from Columbia County, GA.

DATES: Repatriation of the human remains and associated funerary objects in this notice may occur on or after June 5, 2023.

ADDRESSES: Mr. Rodney Parker, Regulatory Archeologist and District Tribal Liaison, U.S. Army Corps of Engineers, Savannah District, 100 W Oglethorpe Avenue, Savannah, GA 31401, telephone (912) 652–5964, email *Rodney.D.Parker@usace.army.mil.*

SUPPLEMENTARY INFORMATION: This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA. The determinations in this notice are the sole responsibility of the U.S. Army Corps of Engineers, Savannah District. The National Park Service is not responsible for the determinations in this notice. Additional information on the determinations in this notice, including the results of consultation, can be found in the inventory or related records held by the U.S. Army Corps of Engineers, Savannah District.

Description

Human remains representing, at minimum, six individuals were removed from Columbia County, GA. Between 1948–1951, the National Park Service's River Basin Survey conducted archeological investigations at the Lake Springs Village site (9CB22), located within the former Clark's Hill Lake, now Thurmond Lake. Subsequent excavations at this site were conducted by the Smithsonian Institution on behalf of the Savannah District in response to the imminent construction of Thurmond Lake. The human remains belong to four adults, one of whom is likely male, and two individuals for whom no further information is available. No known individuals were identified. (Additional human remains and cultural objects removed from this site are housed at the Smithsonian Institution and are under its control.) The 425 associated funerary objects are two rocks, three wood fragments, one lot of soil matrix, two bone tools, 21 gastropod shells, one matrix nodule with bone, one lot of bone and shell in matrix, six turtle shell fragments, 185 faunal remains, 99 potsherds, six projectile points, one quartz projectile point, 38 lithics, one petrified wood, one biface, 14 noncultural objects, two fire-cracked rocks, two worked bones, 22 shell, four flakes, one projectile point base, one quartz nodule, one quartz thumb scraper, two worked quartz, and eight unidentified clay items.

Cultural Affiliation

The human remains and associated funerary objects in this notice are connected to one or more identifiable earlier groups, tribes, peoples, or cultures. There is a relationship of shared group identity between the identifiable earlier groups, tribes, peoples, or cultures and one or more Indian Tribes or Native Hawaiian organizations. The following types of information were used to reasonably trace the relationship: anthropological, archeological, biological, geographical, historical, other relevant information, and expert opinion.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, the U.S. Army Corps of Engineers, Savannah District, has determined that:

- The human remains described in this notice represent the physical remains of six individuals of Native American ancestry.
- The 425 objects described in this notice are reasonably believed to have been placed with or near individual human remains at the time of death or later as part of the death rite or ceremony.
- There is a relationship of shared group identity that can be reasonably traced between the human remains and associated funerary objects described in this notice and The Muscogee (Creek) Nation.

Requests for Repatriation

Written requests for repatriation of the human remains and associated funerary objects in this notice must be sent to the Responsible Official identified in **ADDRESSES**. Requests for repatriation may be submitted by:

1. Any one or more of the Indian Tribes or Native Hawaiian organizations identified in this notice.
2. Any lineal descendant, Indian Tribe, or Native Hawaiian organization not identified in this notice who shows, by a preponderance of the evidence, that the requestor is a lineal descendant or a culturally affiliated Indian Tribe or Native Hawaiian organization.

Repatriation of the human remains and associated funerary objects in this notice to a requestor may occur on or after June 5, 2023. If competing requests for repatriation are received, the U.S. Army Corps of Engineers, Savannah District, must determine the most appropriate requestor prior to repatriation. Requests for joint repatriation of the human remains and associated funerary objects are considered a single request and not competing requests. The U.S. Army Corps of Engineers, Savannah District, is responsible for sending a copy of this notice to the Indian Tribe identified in this notice.

Authority: Native American Graves Protection and Repatriation Act, 25 U.S.C. 3003, and the implementing regulations, 43 CFR 10.9, § 10.10, and § 10.14.

Dated: April 25, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–09475 Filed 5–3–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035770; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Illinois State Museum, Springfield, IL

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the Illinois State Museum has completed an inventory of human remains and associated funerary objects and has determined that there is a cultural affiliation between the human remains and associated funerary objects and Indian Tribes or Native Hawaiian organizations in this notice. The human remains and associated funerary objects were removed from multiple locations in Arkansas, including Craighead, Crittenden, Cross, and Lonoke Counties, and an unknown Arkansas locale.

DATES: Repatriation of the human remains and associated funerary objects in this notice may occur on or after June 5, 2023.

ADDRESSES: Brooke M. Morgan, Illinois State Museum Research & Collections Center, 1011 East Ash Street, Springfield, IL 62701, telephone (217) 785–8930, email *brooke.morgan@illinois.gov.*

SUPPLEMENTARY INFORMATION: This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA. The determinations in this notice are the sole responsibility of the Illinois State Museum. The National Park Service is

not responsible for the determinations in this notice. Additional information on the determinations in this notice, including the results of consultation, can be found in the inventory or related records held by the Illinois State Museum.

Description

Sometime between 1956 and 1960, human remains representing, at minimum, two individuals were removed from the Lawhorn site in Craighead County by John Moselage. In 1960, faunal remains from this site were transferred to the Illinois State Museum for Paul Parmalee to analyze. During that analysis, fragmentary human skeletal remains were identified. No associated funerary objects are present. The Lawhorn site dates to the Mississippian period, with earlier Woodland components present to a lesser extent.

On December 28, 1962, human remains representing, at minimum, two individuals were removed from the McDuffee site (32CG21) in Craighead County by Gregory Perino. In 1963, faunal remains from this site were transferred to the Illinois State Museum for Paul Parmalee to analyze. During that analysis, fragmentary human skeletal remains were identified. No associated funerary objects are present. The McDuffee site dates to the Mississippian period.

Sometime between 1957 and 1959, human remains representing, at minimum, 10 individuals were removed from the Banks site (3CT16) in Crittenden County by Gregory Perino of the Gilcrease Foundation. In 1959, together with faunal remains for Paul Parmalee to analyze, these human remains were transferred to the Illinois State Museum. Nine of these individuals are largely represented by isolated postcranial elements, while the tenth individual, an adult male, is represented by a nearly complete skeleton. The one associated funerary object is one lot of mussel shell. The Banks site dates to the Nodena Phase of the Mississippian period.

On an unknown date, human remains representing, at minimum, one individual were removed from Crittenden County. In 1967, these human remains were transferred from a private collection to the Illinois State Museum. No associated funerary objects are present.

On an unknown date, human remains representing, at minimum, one individual were removed from Crittenden County. In 2009, these human remains were donated from a private estate to the Illinois State Museum. No associated funerary objects are present.

On an unknown date, human remains representing, at minimum, one individual were removed from the Rose Mound site (3CS27) in Cross County and later donated to the Quincy Museum in Quincy, IL. In 1991, these human remains were transferred to the Illinois State Museum. No associated funerary objects are present. Rose Mound dates to the Parkin Phase of the Mississippian period.

On an unknown date, human remains representing, at minimum, one individual were removed from ''a mound near Little Rock,'' most likely Toltec Mounds (3LN42) in Lonoke County. In 1967, these human remains were transferred from a private collection to the Illinois State Museum. No associated funerary objects are present. Toltec Mounds dates to the Late Woodland (Plum Bayou culture) and Quapaw Phase of the Mississippian period.

On an unknown date, human remains representing, at minimum, one individual were removed from an unknown location in Arkansas. In 1967, these human remains were transferred from a private collection to the Illinois State Museum. No associated funerary objects are present.

Cultural Affiliation

The human remains and associated funerary objects in this notice are connected to one or more identifiable earlier groups, tribes, peoples, or cultures. There is a relationship of shared group identity between the identifiable earlier groups, tribes, peoples, or cultures and one or more Indian Tribes or Native Hawaiian organizations. The following types of information were used to reasonably trace the relationship: anthropological, archeological, geographical, historical, and oral traditional.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, the Illinois State Museum has determined that:

- The human remains described in this notice represent the physical remains of 19 individuals of Native American ancestry.
- The one object described in this notice is reasonably believed to have been placed with or near individual human remains at the time of death or later as part of the death rite or ceremony.
- There is a relationship of shared group identity that can be reasonably traced between the human remains and associated funerary objects described in this notice and the Quapaw Nation.

Requests for Repatriation

Written requests for repatriation of the human remains and associated funerary objects in this notice must be sent to the Responsible Official identified in **ADDRESSES**. Requests for repatriation may be submitted by:

1. Any one or more of the Indian Tribes or Native Hawaiian organizations identified in this notice.
2. Any lineal descendant, Indian Tribe, or Native Hawaiian organization not identified in this notice who shows, by a preponderance of the evidence, that the requestor is a lineal descendant or a culturally affiliated Indian Tribe or Native Hawaiian organization.

Repatriation of the human remains and associated funerary objects in this notice to a requestor may occur on or after June 5, 2023. If competing requests for repatriation are received, the Illinois State Museum must determine the most appropriate requestor prior to repatriation. Requests for joint repatriation of the human remains and associated funerary objects are considered a single request and not competing requests. The Illinois State Museum is responsible for sending a copy of this notice to the Indian Tribe identified in this notice.

Authority: Native American Graves Protection and Repatriation Act, 25 U.S.C. 3003, and the implementing regulations, 43 CFR 10.9, § 10.10, and § 10.14.

Dated: April 25, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–09473 Filed 5–3–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

Bureau of Ocean Energy Management

Notice on Outer Continental Shelf Oil and Gas Lease Sales

AGENCY: Bureau of Ocean Energy Management (BOEM), Interior.

ACTION: List of restricted joint bidders.

SUMMARY: Pursuant to the Energy Policy and Conservation Act of 1975 and BOEM's regulatory restrictions on joint bidding, BOEM is publishing this list of restricted joint bidders. Each entity within one of the following groups is restricted from bidding with any entity in any of the other groups listed below

at Outer Continental Shelf oil and gas lease sales held during the bidding period of May 1, 2023, through October 31, 2023.

DATES: This list of restricted joint bidders covers the bidding period of May 1, 2023, through October 31, 2023, and succeeds all prior published lists.

SUPPLEMENTARY INFORMATION:

Group I

BP America Production Company
BP Exploration & Production Inc.

Group II

Chevron Corporation
Chevron U.S.A. Inc.
Chevron Midcontinent, L.P.
Unocal Corporation
Union Oil Company of California
Pure Partners, L.P.

Group III

Eni Petroleum Co. Inc.
Eni Petroleum US LLC
Eni Oil US LLC
Eni Marketing Inc.
Eni BB Petroleum Inc.
Eni US Operating Co. Inc.
Eni BB Pipeline LLC

Group IV

Equinor ASA
Equinor Gulf of Mexico LLC
Equinor USA E&P Inc.

Group V

Exxon Mobil Corporation
ExxonMobil Exploration Company

Group VI

Shell Oil Company
Shell Offshore Inc.
SWEPI LP
Shell Frontier Oil & Gas Inc.
SOI Finance Inc.
Shell Gulf of Mexico Inc.

Group VII

Total E&P USA, Inc.

Even if an entity does not appear on the above list, BOEM may disqualify and reject certain joint or single bids submitted by an entity if that entity is chargeable for the prior production period with an average daily production in excess of 1.6 million barrels of crude oil, natural gas, and natural gas liquids. *See* 30 CFR 556.512.

Authority: 42 U.S.C. 6213; and 30 CFR 556.511–556.515.

Elizabeth Klein,

Director, Bureau of Ocean Energy Management.

[FR Doc. 2023–09457 Filed 5–3–23; 8:45 am]

BILLING CODE 4340–98–P

DEPARTMENT OF THE INTERIOR

Bureau of Ocean Energy Management

[Docket No. BOEM–2023–0031]

Notice of Intent To Prepare an Environmental Assessment for a Wind Energy Research Lease on the Atlantic Outer Continental Shelf Offshore Maine

AGENCY: Bureau of Ocean Energy Management, Interior.

ACTION: Notice of intent.

SUMMARY: In compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, the Bureau of Ocean Energy Management (BOEM) intends to prepare an environmental assessment (EA) to consider the reasonably foreseeable environmental consequences associated with the issuance of a research lease to the State of Maine. That lease would grant Maine the exclusive right to submit, for BOEM's potential approval, plans for wind energy-related research activities offshore Maine. BOEM is seeking public input regarding important environmental issues and the identification of reasonable alternatives that should be considered in the EA.

DATES: BOEM must receive your comments no later than June 5, 2023.

ADDRESSES: You may submit comments by either of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov.* In the entry entitled, ''Enter Keyword or ID,'' enter BOEM–2023–0031, and then click ''search.'' Follow the instructions to submit public comments and view supporting and related materials available for this notice; or
- By U.S. Postal Service or other delivery service, send your comments and information to the following address: Bureau of Ocean Energy Management, Office of Renewable Energy Programs, 45600 Woodland Road, Mail Stop VAM–OREP, Sterling, VA 20166.

FOR FURTHER INFORMATION CONTACT: Jessica Stromberg, BOEM, Environment Branch for Renewable Energy, 45600 Woodland Road, Mail Stop VAM–OREP, Sterling, VA 20166, 703–787–1730, or *jessica.stromberg@boem.gov.*

SUPPLEMENTARY INFORMATION:

Authority: This notice of intent to prepare an EA is published pursuant to 43 CFR 46.305.

1. Background

On March 20, 2023, BOEM issued a notice that competitive interest did not exist in the area proposed for a research lease by the State of Maine (88 FR 16662). Thus, BOEM has decided to proceed with the research leasing process using the procedures described in 30 CFR 585.239. The next step in that process includes initiating an environmental review of potential impacts from activities associated with the research lease, if issued.

Proposed Action and Scope of Analysis

The proposed action that will be the subject of the EA is the issuance of a research lease. In addition to the no action alternative (no lease issuance), other alternatives may be considered, such as exclusion of certain areas from project siting or modification of project activities. The EA will consider the reasonably foreseeable environmental consequences associated with lease issuance that are expected to take place following issuance of a research lease to the State of Maine, including the potential impacts of site characterization surveys and site assessment activities, such as the deployment and recovery of a meteorological buoy. BOEM has decided to prepare an EA for this proposed action in order to assist agency's planning and decision making (40 CFR 1501.5(b)). This notice starts the formal scoping process for the EA under 40 CFR 1501.9 and solicits information regarding additional important environmental issues and alternatives that should be considered in the EA. Additionally, BOEM will use the scoping process to identify and eliminate from detailed analysis issues that are not significant or that have been analyzed by prior environmental reviews (40 CFR 1501.9(f)(1)).

BOEM will use responses to this notice and the EA public input process to satisfy the public involvement requirements of the National Historic Preservation Act (54 U.S.C. 306108), as provided in 36 CFR 800.2(d)(3). Consequently, BOEM seeks information from the public on the identification of historic properties that might be impacted by the leasing activities should BOEM decide to issue the research lease. The analyses contained within the EA also will support compliance with other environmental statutes (*e.g.,* Endangered Species Act, Magnuson-Stevens Fishery Conservation and Management Act, and Marine Mammal Protection Act).

The research lease would not authorize any activities on the Outer Continental Shelf, but would grant the State of Maine the exclusive rights to submit plans for BOEM approval. Prior to the approval of any plan authorizing the construction and operation of wind

energy-related research facilities, BOEM would prepare a plan-specific environmental analysis and will comply with all required consultation requirements.

2. Cooperating Agencies

BOEM invites Federal, State, and local government agencies, as well as Tribal governments, to consider becoming cooperating agencies in the preparation of this EA. Council on Environmental Quality (CEQ) regulations implementing the procedural provisions of NEPA defines cooperating agencies as those with ''jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative)'' (40 CFR 1508.1(e)). Potential cooperating agencies should consider their authority and capacity to assume the responsibilities of a cooperating agency and remember that an agency's role in the environmental analysis neither enlarges nor diminishes the final decision-making authority of any other agency involved in the NEPA process.

Upon request, BOEM will provide potential cooperating agencies with a draft memorandum of agreement that includes a schedule with critical action dates and milestones, mutual responsibilities, designated points of contact, and expectations for handling pre-decisional information. Agencies should also consider the ''Factors for Determining Whether to Invite, Decline or End Cooperating Agency Status'' in attachment 1 to CEQ's January 30, 2002, memorandum for Federal agencies titled, ''Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act.'' A copy of this document is available at: *https://www.energy.gov/nepa/articles/cooperating-agencies-implementing-procedural-requirements-national-environmental.*

BOEM, as the lead agency, will not provide financial assistance to cooperating agencies. Even if an organization is not a cooperating agency, opportunities will exist to provide information and comments to BOEM during the normal public input phases of the NEPA and EA process.

3. Comments

Federal, State, local government agencies, Tribal governments, and other interested parties are requested to send their written comments on the important issues to be considered in the EA by either of the following methods:

1. *Federal eRulemaking Portal: https://www.regulations.gov.* In the entry entitled, ''Enter Keyword or ID,'' enter BOEM–2023–0031, and then click ''search.'' Follow the instructions to submit public comments and view supporting and related materials available for this notice; or

2. By U.S. Postal Service or other delivery service, send your comments and information to the following address and marked ''Gulf of Maine Research Lease EA'': Bureau of Ocean Energy Management, Office of Renewable Energy Programs, 45600 Woodland Road, Mail Stop VAM–OREP, Sterling, VA 20166.

Freedom of Information Act

BOEM will protect privileged or confidential information that you submit when required by the Freedom of Information Act (FOIA). Exemption 4 of FOIA applies to trade secrets and commercial or financial information that is privileged or confidential. If you wish to protect the confidentiality of such information, clearly label it and request that BOEM treat it as confidential. BOEM will not disclose such information if BOEM determines under 30 CFR 585.114(b) that it qualifies for exemption from disclosure under FOIA. Please label privileged or confidential information ''Contains Confidential Information'' and consider submitting such information as a separate attachment.

BOEM will not treat as confidential any aggregate summaries of such information or comments not containing such privileged or confidential information. Information that is not labeled as privileged or confidential may be regarded by BOEM as suitable for public release.

b. Personally Identifiable Information

BOEM encourages you not to submit anonymous comments. Please include your name and address as part of your comment. You should be aware that your entire comment, including your name, address, and any personally identifiable information (PII) included in your comment, may be made publicly available. All submissions from identified individuals, businesses, and organizations will be available for public viewing on *regulations.gov.* Note that BOEM will make available for public inspection all comments, in their entirety, submitted by organizations and businesses, or by individuals identifying themselves as representatives of organizations or businesses.

For BOEM to consider withholding your PII from disclosure, you must identify any information contained in your comments that, if released, would constitute a clearly unwarranted invasion of your personal privacy. You must also briefly describe any possible harmful consequences of the disclosure of information, such as embarrassment, injury, or other harm. Even if BOEM withholds your information in the context of this rulemaking, your submission is subject to FOIA and, if your submission is requested under the FOIA, your information will only be withheld if a determination is made that one of the FOIA's exemptions to disclosure applies. Such a determination will be made in accordance with the Department's FOIA regulations and applicable law.

c. Section 304 of the NHPA (54 U.S.C. 307103(a))

After consultation with the Secretary, BOEM is required to withhold the location, character, or ownership of historic resources if it determines that disclosure may, among other things, risk harm to the historic resources or impede the use of a traditional religious site by practitioners. Tribal entities should designate information that falls under section 304 of NHPA as confidential.

Elizabeth Klein,

Director, Bureau of Ocean Energy Management.

[FR Doc. 2023–09478 Filed 5–3–23; 8:45 am]

BILLING CODE 4340–98–P

DEPARTMENT OF THE INTERIOR

Office of Surface Mining Reclamation and Enforcement

[S1D1S SS08011000 SX064A000 231S180110; S2D2S SS08011000 SX064A000 23XS501520; OMB Control Number 1029–0091]

Submission to the Office of Management and Budget for Review and Approval; Requirements for Surface Coal Mining and Reclamation Operations on Indian Lands

AGENCY: Office of Surface Mining Reclamation and Enforcement, Interior.

ACTION: Notice of information collection; request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, we, the Office of Surface Mining Reclamation and Enforcement (OSMRE), are proposing to renew an information collection.

DATES: Interested persons are invited to submit comments on or before July 3, 2023.

ADDRESSES: Send your comments on this information collection request (ICR) by mail to Mark Gehlhar, Office of

Surface Mining Reclamation and Enforcement, 1849 C Street NW, Room 4556–MIB, Washington, DC 20240, or by email to *mgehlhar@osmre.gov.* Please reference OMB Control Number 1029–0091 in the subject line of your comments.

FOR FURTHER INFORMATION CONTACT: To request additional information about this ICR, contact Mark Gehlhar by email at *mgehlhar@osmre.gov,* or by telephone at 202–208–2716. 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. 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. You may also view the ICR at *http://www.reginfo.gov/public/do/PRAMain.*

SUPPLEMENTARY INFORMATION: In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) and 5 CFR 1320.8(d)(1), we provide the general public and other Federal agencies with an opportunity to comment on new, proposed, revised, and continuing collections of information. This helps us assess the impact of our information collection requirements and minimize the public's reporting burden. It also helps the public understand our information collection requirements and provide the requested data in the desired format.

We are soliciting comments on the proposed ICR that is described below. We are especially interested in public comment addressing the following issues: (1) is the collection necessary to the proper functions of the agency; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the agency enhance the quality, utility, and clarity of the information to be collected; and (5) how might the agency minimize the burden of this collection on the respondents, including through the use of information technology.

Comments that you submit in response to this notice are a matter of public record. We will include or summarize each comment in our request to OMB to approve this ICR. 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.

Abstract: Surface coal mining permit applicants who conduct or propose to conduct surface coal mining and reclamation operations on Indian lands must comply with the requirements of 30 CFR 750 pursuant to Section 710 of SMCRA.

Title of Collection: Requirements for Surface Coal Mining and Reclamation Operations on Indian Lands.

OMB Control Number: 1029–0091.

Form Number: None.

Type of Review: Extension of a currently approved collection.

Respondents/Affected Public: Businesses.

Total Estimated Number of Annual Respondents: 2.

Total Estimated Number of Annual Responses: 30.

Estimated Completion Time per Response: Varies from 140 to 730 hours, depending in activity.

Total Estimated Number of Annual Burden Hours: 5,468.

Respondent's Obligation: Required to obtain or retain a benefit.

Frequency of Collection: Once.

Total Estimated Annual Nonhour Burden Cost: $34,000.

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 authority for this action is the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

Mark J. Gehlhar,

Information Collection Clearance Officer, Division of Regulatory Support.

[FR Doc. 2023–09505 Filed 5–3–23; 8:45 am]

BILLING CODE 4310–05–P

DEPARTMENT OF JUSTICE

[OMB Number 1121–0NEW]

Agency Information Collection Activities; Proposed eCollection eComments Requested; Data Security Requirements for Accessing Restricted Data

AGENCY: Bureau of Justice Statistics, Department of Justice.

ACTION: 30-day notice.

SUMMARY: The Department of Justice (DOJ), Office of Justice Programs, Bureau of Justice Statistics, will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection was previously published in the **Federal Register** on November 17, 2022, allowing a 60-day comment period.

DATES: Comments are encouraged and will be accepted for 30 days until June 5, 2023.

FOR FURTHER INFORMATION CONTACT: If you have comments especially on the estimated public burden or associated response time, suggestions, or need a copy of the proposed information collection instrument with instructions or additional information, please contact the Bureau of Justice Statistics, 810 Seventh Street NW, Washington, DC 20531; telephone (202) 307–0765 or send an email to *askbjs@usdoj.gov.* Please include ''Data Security Requirements for Accessing Restricted Data'' in the subject line.

SUPPLEMENTARY INFORMATION: Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

—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;

—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;

—Enhance the quality, utility, and clarity of the information to be collected; and/or

—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.

DOJ 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 DOJ notes that information collection requirements submitted to the OMB for existing ICRs receive a month-to-month extension while they undergo review.

Overview of this information collection:

1. *Type of Information Collection:* New collection.

2. *Title of the Form/Collection:* Data Security Requirements for Accessing Restricted Data.

3. *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection:* There is no form number associated with this information collection. The applicable component within the Department of Justice is the Bureau of Justice Statistics, in the Office of Justice Programs.

4. *Affected public who will be asked or required to respond, as well as a brief abstract:* Affected Public: State, Local and Tribal Governments.

Abstract: The Foundations for Evidence-Based Policymaking Act of 2018 mandates that the OMB establish a Standard Application Process (SAP) for requesting access to certain confidential data assets for statistical purposes, including evidence-building. The SAP is to be a process through which agencies, the Congressional Budget Office, State, local, and Tribal governments, researchers, and other individuals, as appropriate, may apply to access confidential data assets held by a federal statistical agency or unit for the purposes of developing evidence. BJS will collect some information to meet its data security requirements through the SAP Portal to review an application for restricted (confidential) microdata. Once an application for restricted data is approved through the SAP Portal, BJS will collect additional information to complete its data security requirements.

5. *Total Estimated Number of Respondents:* 55.

6. *Total Estimated Number of Responses:* 55.

7. *Time per Response: 3 hours.*

8. *Total Estimated Annual Time Burden:* 165 hours.

9. *Total Estimated Annual Other Costs Burden:* $0.

If additional information is required, contact: John R. Carlson, Department Clearance Officer, Policy and Planning Staff, Justice Management Division, United States Department of Justice, Two Constitution Square, 145 N Street NE, 4W–218 Washington, DC 20530.

Dated: April 25, 2023.

John R. Carlson,

Department Clearance Officer for PRA, U.S. Department of Justice.

[FR Doc. 2023–09498 Filed 5–3–23; 8:45 am]

BILLING CODE 4410–18–P

DEPARTMENT OF LABOR

Advisory Committee on Veterans' Employment, Training and Employer Outreach (ACVETEO): Charter Renewal

AGENCY: Veterans' Employment and Training Service (VETS), Department of Labor (DOL).

ACTION: Notice of ACVETEO charter renewal.

SUMMARY: In accordance with section 4110 of Title 38, U.S. Code, and the provisions of the Federal Advisory Committee Act (FACA) and its implementing regulations issued by the U.S. General Services Administration (GSA), the Secretary of Labor is renewing the charter for the Advisory Committee on Veterans' Employment, Training, and Employer Outreach (ACVETEO).

SUPPLEMENTARY INFORMATION: The ACVETEO's responsibilities are to: (a) assess employment and training needs of veterans and their integration into the workforce; (b) determine the extent to which the programs and activities of the Department of Labor (DOL) are meeting such needs; (c) assist the Assistant Secretary for Veterans' Employment and Training (ASVET) in conducting outreach to employers with respect to the training and skills of veterans and the advantages afforded employers by hiring veterans; (d) make recommendations to the Secretary of Labor, through the ASVET, with respect to outreach activities and the employment and training needs of veterans; and (e) carry out such other activities deemed necessary to make required reports and recommendations under Section 4110(f) of Title 38, U.S. Code.

Per Section 4110(c)(1) of Title 38, U.S. Code, the Secretary of Labor shall appoint at least twelve, but no more than sixteen, individuals to serve as Special Government Employees of the ACVETEO as follows: seven individuals, one each from the following organizations: (i) the Society for Human Resource Management; (ii) the Business Roundtable; (iii) the National Association of State Workforce Agencies; (iv) the United States Chamber of Commerce; (v) the National Federation of Independent Business; (vi) a nationally recognized labor union or organization; and (vii) the National Governors Association. The Secretary shall appoint not more than five individuals nominated by veterans' service organizations that have a national employment program and not more than five individuals who are recognized authorities in the fields of business, employment, training, rehabilitation, or labor and who are not employees of DOL. Members will serve as Special Government Employees.

The ACVETEO will function in compliance with the provisions of the FACA, and its charter will be filed under the FACA. For more information, contact Gregory B. Green, Designated Federal Official, ACVETEO, U.S. Department of Labor, 200 Constitution Ave NW, Washington, DC 20210; via email to Mr. Gregory Green, Designated Federal Official for the ACVETEO, *ACVETEO@dol.gov,* (202) 693–4734.

Signed in Washington, DC, this 27th day of April 2023.

James D. Rodriguez,

Assistant Secretary, Veterans' Employment and Training Service.

[FR Doc. 2023–09461 Filed 5–3–23; 8:45 am]

BILLING CODE 4510–79–P

DEPARTMENT OF LABOR

Agency Information Collection Activities; Submission for OMB Review; Comment Request; Enhancing Registered Apprenticeship Initiatives, New Collection

AGENCY: Office of the Assistant Secretary for Policy, Chief Evaluation Office, Department of Labor.

ACTION: Notice of information collection; request for comment.

SUMMARY: The Department of Labor (DOL), as part of its continuing effort to reduce paperwork and respondent burden, conducts a preclearance consultation program to provide the general public and federal agencies with an opportunity to comment on proposed and/or continuing collections of information in accordance with the Paperwork Reduction Act of 1995 (PRA95). This program helps to ensure that requested data can be provided in the desired format, reporting burden (time and financial resources) is minimized, collection instruments are clearly understood, and the impact of collection requirements on respondents is properly assessed. Currently, the Department of Labor is soliciting comments concerning the collection of data about the Enhancing Registered Apprenticeship Initiatives. A copy of the proposed Information Collection Request (ICR) can be obtained by contacting the office listed below in the addressee section of this notice.

DATES: Written comments must be submitted to the office listed in the addressee section below on or before July 3, 2023.

ADDRESSES: You may submit comments by either one of the following methods:

Email: ChiefEvaluationOffice@dol.gov; Mail or Courier: Monica Mean, Chief Evaluation Office, OASP, U.S. Department of Labor, Room S–2312, 200 Constitution Avenue NW, Washington, DC 20210. *Instructions:* Please submit one copy of your comments by only one method. All submissions received must include the agency name and OMB Control Number identified above for this information collection. Comments, including any personal information provided, become a matter of public record. They will also be summarized and/or included in the request for OMB approval of the information collection request.

FOR FURTHER INFORMATION CONTACT: Monica Mean by email at *ChiefEvaluationOffice@dol.gov* or by phone at (202) 693–6034.

SUPPLEMENTARY INFORMATION: I. *Background:* The Chief Evaluation Office (CEO) of the U.S. Department of Labor (DOL) intends to design and conduct evaluations of DOL-funded apprenticeship initiatives through the Enhancing Registered Apprenticeship Initiatives (ERAI) project. The purpose of the project is three-fold:

(1) Design and conduct analyses that add to the evidence base on apprenticeship strategies and models through an evaluation of the Apprenticeship Building American (ABA) grants.

(2) Conduct an impact and cost-benefit evaluability assessment of pre-registered apprenticeship programs that lead to registered apprenticeship programs (RAPs).

(3) Coordinate across the portfolio of apprenticeship projects at CEO and beyond to facilitate sharing of findings, methods, and learning about apprenticeship broadly across research teams.

DOL's CEO contracted with Urban Institute and its partners, Mathematica, and Social Policy Research Associates to conduct the study of these efforts. The ERAI will address the first purpose above by conducting three implementation studies based on the four categories of the ABA grants:

(1) Implementation study of the ABA State Apprenticeship System Building and Modernization grants (Category 1)
(2) Implementation study of the ABA Expansion of RAP Opportunities for Youth grants (Category 2) and ABA Ensuring Equitable RAP Pathways through Pre-Apprenticeship Leading to RAP enrollment and Equity Partnerships grants (Category 3)
(3) Implementation study of ABA registered apprenticeship Hubs grants (Category 4)

This **Federal Register** Notice provides the opportunity to comment on proposed data collection instruments that will be used in the evaluations: grantee surveys for the three ABA implementation studies; surveys of pre-apprentice and apprentice participants; a focus group guide for apprentices and pre-apprentices; interview guides for ABA grantee program staff; interview guides for ABA grantee program partners, employers, and Hub customers; focus group guide for ABA apprentice and pre-apprentice participants; baseline survey and informed consent of ABA pre-apprenticeship participants; and related baseline survey and informed consent of ABA program staff.

1–3. Surveys for ABA grantees. Three surveys to all ABA grantees for each of the three implementation studies listed above. There are 5 grantees in the Study 1 survey, 19 grantees in the Study 2 survey, and 15 grantees in the Study 3 survey. These will be fielded in spring 2024.

4–5. Surveys of ABA participants. A survey of Study 2 ABA apprentices and a survey of Study 2 ABA pre-apprentices.

6. Focus group guide for ABA participants. A guide for focus groups conducted in Study 1 (5 total) and Study 2 (4 total) assuming 10 participants per group.

7–9. Interview guides for ABA program staff. During site visits, interviews with 5 program staff from ABA State grantees (study 1), 6 ABA Youth or Pre-Apprenticeship grantees (study 2), and 5 ABA Hub grantees (study 3) will occur in the fall of 2024. During these site visits, we will conduct one-on-one or small-group semi-structured interviews with program staff.

10–12. Interview guides for ABA program partners/employers. Also, as part of each of these site visits, we will conduct one-on-one or small-group semi-structured interviews with staff from program partners, including employers, training and education providers, and community stakeholders.

13. Interview guide for ABA Hub grantee customers. In addition, during site visits for the Hub grantees (Category 4) we will interview customers for which that Hub has provided technical assistance.

14. Baseline survey and informed consent of pre-apprenticeship participants. Survey of ABA pre-apprenticeship program participants to collect baseline information for potential future impact study.

15. Baseline survey and informed consent of program staff. Survey of ABA pre-apprenticeship (grant categories 1 and 2) program staff, including supervisors, instructors, and counselors, to collect baseline information and informed consent.

DOL will submit additional requests for future data collection for the overall study.

II. *Desired Focus of Comments:* Currently, DOL is soliciting comments concerning the above data collection for Enhancing Registered Apprenticeship Initiatives. DOL is particularly interested in comments that do the following:

- 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.
- 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.
- Enhance the quality, utility, and clarity of the information to be collected.
- 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—for example, permitting electronic submission of responses.

III. *Current Actions:* At this time, DOL is requesting clearance for grantee surveys for the three ABA implementation studies; surveys of pre-apprentice and apprentice participants; a focus group guide for apprentices and pre-apprentices; interview guides for ABA grantee program staff; interview guides for ABA grantee program partners, employers, and Hub customers; focus group guide for ABA apprentice and pre-apprentice participants; baseline survey and informed consent of ABA pre-apprenticeship participants; and related baseline survey and informed consent of ABA program staff.

Type of Review: New information collection request.

OMB Control Number: 1290–0NEW.

Affected Public: Program staff, program partners, and participants of the Apprenticeship Building America grants.

Comments submitted in response to this request will be summarized and/or included in the request for Office of

Management and Budget approval of the information collection request; they will also become a matter of public record.

ESTIMATED ANNUAL BURDEN HOURS

Type of instrument	Number of respondents	Number of responses per respondent	Total number of responses	Average burden per response (in hours)	Estimated burden hours	Average hourly wage ($) [1]	Annual burden costs
ABA Youth and Pre-Apprenticeship grantee survey	[2] 19	1	19	3	57	36.92	2,104.44
ABA State grantee survey	[2] 5	1	5	1.5	7.5	36.92	276.90
ABA Hub grantee survey	[2] 15	1	15	1.5	22.5	36.92	830.70
ABA Pre-apprenticeship participant survey	[3] 1,000	1	1,000	1	1,000	7.25	7,250
ABA Apprenticeship participant survey	[3] 1,000	1	1,000	1	1,000	7.25	7,250
ABA participant focus group protocol	[4] 90	1	90	1.5	135	7.25	978.75
ABA Youth and Pre-Apprenticeship grantee staff interview protocol	[5] 24	1	24	1	24	36.92	886.08
ABA Youth and Pre-Apprenticeship partner/employer interview protocol	[5] 18	1	18	1	18	36.92	664.65
ABA State grantee staff/partner interview protocol	[6] 30	1	30	1	30	36.92	1,107.60
ABA State employer interview protocol	[6] 10	1	10	1	10	36.92	369.20
ABA Hub grantee staff interview protocol	[7] 20	1	20	1	20	36.92	738.40
ABA Hub partner interview protocol	[7] 20	1	20	1	20	36.92	738.40
ABA Hub customer interview protocol	[7] 15	1	15	.5	7.5	36.92	276.90
ABA Impact Baseline survey—pre-apprentices	[8] 1000	1	1,000	0.33	330	7.25	2,392.50
ABA Impact Baseline survey and consent–program staff [3]	[9] 40	25	1,000	0.33	330	36.92	12,183.60
Total	3,306	39	4,266	16.66	3,011.5	435.12	38,048.03

Note: Each of the activities described in the table below, with the exception of the ABA Impact Baseline survey and consent appearing in last two rows, will take place within one calendar year so the annualized burden represents the total burden for the study. The ABA Impact Baseline survey for pre-apprentices and consent from administered by program staff represent annualized estimates for random assignment. We estimate these activities could cover up to three years.

[1] Hourly wage for program staff and partners reflects the May 2021 mean hourly wage estimate for ''social and community service managers'' as reported by the U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment and Wage Estimates, 2022, ''May 2021 National Occupational Employment and Wage Estimates United States,'' (accessed from the following website as of March 29, 2022: *https://www.bls.gov/oes/current/oes_nat.htm.* For apprentices and pre-apprentices the hourly wage listed is the minimum wage.

[2] Assumes each of the ABA grantees is surveyed.

[3] This assumes that we survey roughly 3,000 apprentices and 3,000 pre-apprentices with a 33 percent response rate.

[4] Assumes 5 focus groups (one per state) in study 1 and 4 focus groups in study 2. Assumes 10 participants per group.

[5] Assumes 6 sites visited for study 2 and interview 4 program staff and 3 partners (including employers) per site.

[6] Assumes 5 sites visited for study 1 and interview 4 grantee staff and 3 partners (other than employers) and 2 employers.

[7] Assumes 5 sites visited for study 3 interviews with 4 grantee staff, 4 partners (including employers) and 3 customers.

[8] Assumes 1,000 participants randomized every year.

[9] The burden estimate for the program staff assumes they will help with collecting the baseline survey and consent form information from program participants. Assumes 40 staff assist in participant randomization every year, each serving 25 participants.

Karen Livingston,

Acting Chief Evaluation Officer, U.S. Department of Labor.

[FR Doc. 2023–09491 Filed 5–3–23; 8:45 am]

BILLING CODE 4510–HX–P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice: 23–037]

NASA Advisory Council; Human Exploration and Operations Committee

AGENCY: National Aeronautics and Space Administration.

ACTION: Notice of meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, as amended, the National Aeronautics and Space Administration (NASA) announces a meeting of the Human Exploration and Operations Committee of the NASA Advisory Council (NAC). This Committee reports to the NAC.

DATES: Monday, May 15, 2023, 9:30 a.m. to 12:35 p.m.; and Tuesday, May 16, 2023, 9:00 a.m. to 4:00 p.m., Eastern Time.

ADDRESSES: Public attendance will be virtual. Webex and dial-in information is below under **SUPPLEMENTARY INFORMATION.**

FOR FURTHER INFORMATION CONTACT: Dr. Bette Siegel, Designated Federal Officer, Human Exploration and Operations Committee, NASA Headquarters, Washington, DC 20546, via email at *bette.siegel@nasa.gov* or (202) 358–2245.

SUPPLEMENTARY INFORMATION: As noted above, this meeting will be open to the public via Webex and telephonically. Webex connectivity information is provided below. For audio, when joining the Webex event, you may use your computer or provide your phone number to receive a call back, otherwise, call the U.S. toll conference number listed.

On Monday, May 15, and Tuesday, May 16, the event address for attendees is: *https://nasaenterprise.webex.com/nasaenterprise/j.php?MTID=m993f1ef3f411afec52f184f041a63f63.*

The event number is 2764 745 8303 and the event password is *pMeATbJ@282*. If needed, the U.S. toll conference number is 1–415–527–5035 or 1–929–251–9612 and access code is 2764 745 8303.

The agenda for the meeting includes the following topics:

—Status of the Exploration Systems Development Mission Directorate

—Moon to Mars

—Strategy and Architecture

—Budget

—International Space Station Update

—Commercial Space

—Human Research Program Status

—Office of Chief Health and Medical Officer

It is imperative that this meeting be held on this day to accommodate the scheduling priorities of the key participants.

Patricia Rausch,

Advisory Committee Management Officer, National Aeronautics and Space Administration.

[FR Doc. 2023–09514 Filed 5–3–23; 8:45 am]

BILLING CODE 7510–13–P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice: (23–038)]

NASA Advisory Council; Human Exploration and Operations Committee; and Technology, Innovation and Engineering Committee; Joint Meeting

AGENCY: National Aeronautics and Space Administration.

ACTION: Notice of meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, as amended, the National Aeronautics and Space Administration (NASA) announces a joint meeting of the Human Exploration and Operations Committee, and the Technology, Innovation and Engineering Committee, of the NASA Advisory Council (NAC). These two committees report to the NAC.

DATES: Monday, May 15, 2023, 1:35 p.m. to 5:30 p.m., Eastern Time.

ADDRESSES: Public attendance will be virtual. Webex and dial-in information is below under **SUPPLEMENTARY INFORMATION.**

FOR FURTHER INFORMATION CONTACT: Dr. Bette Siegel, Designated Federal Officer, Human Exploration and Operations Committee, NASA Headquarters, Washington, DC 20546, via email at *bette.siegel@nasa.gov* or (202) 358–2245; and Mr. Mike Green, Designated Federal Officer, Technology, Innovation and Engineering Committee, NASA Headquarters, Washington, DC 20546, via email at *g.m.green@nasa.gov* or (202) 358–4710.

SUPPLEMENTARY INFORMATION: As noted above, this meeting will be open to the public via Webex and telephonically. Webex and dial-in connectivity information is provided below. For audio, when you join the Webex event, you may use your computer or provide your phone number to receive a call back, otherwise, call the U.S. toll conference number listed.

On Monday, May 15, the event address for attendees is: *https://nasaenterprise.webex.com/nasaenterprise/j.php?MTID=m993f1ef3f411afec52f184f041a63f63.*

The event number is 2764 745 8303 and the event password is pMeATbJ@282. If needed, the U.S. toll conference number is 1–929–251–9612 or 1–415–527–5035 and access code is 2764 745 8303.

The agenda for the meeting includes the following topics:

- Transitioning and infusing technologies into Artemis Missions.
- Update on In-Situ Resource Utilization (ISRU) investments.
- Update on Nuclear investments.

It is imperative that this meeting be held on this day to accommodate the scheduling priorities of the key participants.

Patricia Rausch,

Advisory Committee Management Officer, National Aeronautics and Space Administration.

[FR Doc. 2023–09506 Filed 5–3–23; 8:45 am]

BILLING CODE 7510–13–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: Monday, May 8, 2023, from 9:00 a.m.–12:00 p.m. EDT.

PLACE: This meeting will be at the National Science Foundation, 2415 Eisenhower Avenue, Alexandria, VA 22314, and by videoconference.

STATUS: Open.

MATTERS TO BE CONSIDERED: The agenda of the meeting is: Chair's opening remarks; commission planning; discussion of current merit review policy.

CONTACT PERSON FOR MORE INFORMATION: Point of contact for this meeting is: (Chris Blair, *cblair@nsf.gov*), 703/292–7000. Members of the public can observe this meeting through a YouTube livestream. The YouTube link is *https://www.youtube.com/watch?v=g1oHzq6gs-0.*

Christopher Blair,

Executive Assistant to the National Science Board Office.

[FR Doc. 2023–09558 Filed 5–2–23; 11:15 am]

BILLING CODE 7555–01–P

NATIONAL SCIENCE FOUNDATION

Sunshine Act Meetings

FEDERAL REGISTER CITATION OF PREVIOUS ANNOUNCEMENT: The two meetings described here were noticed on April 28, 2023, at 88 FR 26347.

PREVIOUSLY ANNOUNCED TIME AND DATE OF THE MEETING:

Wednesday, May 3, 2023, from 2:00–3:00 p.m. EDT.

Monday, May 8, 2023, from 1:00–5:00 p.m. EDT.

CHANGES IN THE MEETING:

The May 3, 2023, meeting is CANCELLED.

The agenda item from that meeting, Antarctic Infrastructure Recapitalization (AIR) Program, is ADDED to the Monday, May 8, 2023, meeting.

CONTACT PERSON FOR MORE INFORMATION: Point of contact for this meeting is: Chris Blair, *cblair@nsf.gov,* 703/292–7000.

Christopher Blair,

Executive Assistant to the National Science Board Office.

[FR Doc. 2023–09557 Filed 5–2–23; 11:15 am]

BILLING CODE 7555–01–P

NATIONAL SCIENCE FOUNDATION

Proposal Review; Notice of Meetings

In accordance with the Federal Advisory Committee Act (Pub. L. 92–463, as amended), the National Science Foundation (NSF) announces its intent to hold proposal review meetings throughout the year. The purpose of these meetings is to provide advice and recommendations concerning proposals submitted to the NSF for financial support. The agenda for each of these meetings is to review and evaluate proposals as part of the selection process for awards. The review and evaluation may also include assessment of the progress of awarded proposals. The majority of these meetings will take place at NSF, 2415 Eisenhower Avenue, Alexandria, VA 22314.

These meetings will be closed to the public. The proposals being reviewed include information of a proprietary or confidential nature, including technical information; financial data, such as salaries; and personal information concerning individuals associated with the proposals. These matters are exempt under 5 U.S.C. 552b(c), (4) and (6) of the Government in the Sunshine Act. NSF will continue to review the agenda and merits of each meeting for overall compliance of the Federal Advisory Committee Act.

These closed proposal review meetings will not be announced on an individual basis in the **Federal Register**. NSF intends to publish a notice similar to this on a quarterly basis. For an advance listing of the closed proposal review meetings that include the names of the proposal review panel and the time, date, place, and any information on changes, corrections, or cancellations, please visit the NSF website: *https://new.nsf.gov/events/proposal-review-panels.* This information may also be requested by telephoning, 703/292–8687.

Dated: May 1, 2023.

Crystal Robinson,

Committee Management Officer.

[FR Doc. 2023–09485 Filed 5–3–23; 8:45 am]

BILLING CODE 7555–01–P

NUCLEAR REGULATORY COMMISSION

[NRC–2023–0067]

Modern Approaches for Radiological Measurement, Data Collection, and Data Analysis of Surface and Subsurface Residual Radioactivity To Support NRC License Termination

AGENCY: Nuclear Regulatory Commission.

ACTION: Request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is requesting information aimed at understanding the current state-of-art in approaches to radiological survey (*i.e.,* radiation instrumentation and data collection) to support decommissioning and license termination.

DATES: Submit comments by June 5, 2023. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date.

ADDRESSES: You may submit comments by any of the following methods; however, the NRC encourages electronic comment submission through the Federal rulemaking website:

- *Federal rulemaking website:* Go to *https://www.regulations.gov* and search for Docket ID NRC–2023–0067. Address questions about Docket IDs in *Regulations.gov* to Stacy Schumann; telephone: 301–415–0624; email: *Stacy.Schumann@nrc.gov.* For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.
- *Mail comments to:* Office of Administration, Mail Stop: TWFN–7–A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, ATTN: Program Management, Announcements and Editing Staff.

For additional direction on obtaining information and submitting comments, see ''Obtaining Information and Submitting Comments'' in the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Cynthia Barr, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone: 301–415–4015; email: *Cynthia.Barr@nrc.gov.*

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC–2023–0067 when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- *Federal Rulemaking Website:* Go to *https://www.regulations.gov* and search for Docket ID NRC–2023–0067.
- *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.* 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* 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.

B. Submitting Comments

The NRC encourages electronic comment submission through the Federal rulemaking website (*https://www.regulations.gov*). Please include Docket ID NRC–2023–0067 in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at *https://www.regulations.gov* as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Discussion

The NRC is evaluating its readiness to evaluate new forms of data being submitted by licensees to demonstrate compliance with license termination rule (LTR) criteria promulgated in subpart E of part 20 of title 10 of the *Code of Federal Regulations* (10 CFR). Owing to significant technological advancements over the past two decades, NRC licensees have increasingly used, or plan to use, more modern and updated survey instrumentation and data capture tools, including use of global positioning system, light detection and ranging, and geographic information system technologies.[1] Data capture technologies are used to record detector response, the date and time of measurements, and the location (*i.e.,* coordinates) of each measurement. Newer scanning radiation survey instruments and mobile systems represent attractive options for radiological assessment that can be used by NRC licensees. In addition to radiological surveys being performed with a human surveyor using a backpack to hold instrumentation while scanning at a constant speed, various platforms and delivery methods have also been used to perform radiological surveys including autonomous or semi-autonomous air and ground vehicles (*e.g.,* all-terrain vehicles, push carts, remote controlled ground vehicles, and drones).

Comments received on draft NUREG–1575, Revision 2, ''Multi-Agency Radiation Survey and Site Investigation Manual'' (MARSSIM) (ADAMS Accession No. ML21008A573), indicated the need for development of statistical and uncertainty

[1] Note the conventional approach for radiological surveys includes a surveyor listening to the audible output of a radiation detector and pausing to count longer upon hearing an increase in counts as described in NUREG–1507, Revision 1, ''Minimum Detectable Concentrations with Typical Radiation Survey for Instruments for Various Contaminants and Field Conditions'' (ADAMS Accession No. ML20233A507) and NUREG/CR–6364, ''Human Performance in Radiological Survey Scanning.'' Use of more modern systems with continuous data logging and without a surveyor listening to the audible output is increasingly being used. While NUREG–1507, Revision 1, provides some guidance on post-processing of continuously collected data in Chapter 6, Sections 6.3 through 6.5, additional guidance is needed on how to calculate *a priori* scan minimum detectable concentrations, as well as acceptable approaches for post-processing of the data.

methodologies appropriate for these sorts of modern detection systems with data logging. Other comments received on draft MARSSIM, Revision 2, included the need for additional guidance on the use of radiation data mapping generated by continuous data-logging systems.

Because MARSSIM only addresses radiological surveys for surface residual radioactivity, additional guidance is also needed on surveys of radiologically contaminated subsurface materials. The MARSSIM methodology relies heavily on scan surveys to evaluate the presence of elevated areas between discrete sample locations. Subsurface soils cannot be effectively scanned due to attenuation of residual radioactivity in the soil column and, therefore, scanning is only effective for surface or excavated materials. Thus, NRC licensees could benefit from additional information regarding acceptable methods for collecting and analyzing data in the subsurface to support decommissioning sites and license termination. Proposed NRC guidance topics include approaches to optimizing subsurface survey design given access difficulties and costly sampling, and data analysis methods to support remedial and compliance decision-making.

III. Specific Request for Comment

The NRC requests comments from stakeholders, including nuclear licensees, professional organizations, nuclear industry consultants, vendors, academic researchers, and interested individuals. The focus of this request is to obtain responses aimed at gathering information that will permit the NRC staff to better understand trends in radiological survey instrumentation development and data analysis approaches, including those for survey of both surface and subsurface residual radioactivity.

IV. Requested Information and Comments

Additional guidance is needed to provide NRC licensees with increased transparency on acceptable approaches to collection and analysis of data collected using more modern data logging systems and associated instrumentation. Additionally, guidance is needed on acceptable approaches for radiological survey of subsurface residual radioactivity to demonstrate compliance with radiological criteria for license termination.

The NRC requests responses to a set of general questions. The following questions are focused on providing the NRC with an understanding of the state-of-art in approaches used to collect and process radiological survey and other data (surface and subsurface) to support decommissioning and license termination. Responses to these questions are expected to assist the NRC with obtaining information that it needs to develop guidance in the areas of (i) design and analysis of continuously collected radiological survey data without a surveyor listening to the audible output, and (ii) subsurface survey design optimization and data analysis to support decommissioning decision-making. Respondents can respond to any subset of the questions posed (*i.e.,* responses do not need to address every question). Please consider providing information to allow NRC staff to contact organizations or individuals directly to clarify submitted responses.

Note: When answering these questions, consider providing details on when multiple systems are used for redundancy and/or variety and how that influences your response.

Questions Related to Continuously Collected Data Surveys Without a Surveyor Listening to the Audible Output

1. What types of system(s) or equipment (*i.e.,* instrumentation, including radiation detectors, and software) do you use or plan to use to record radiation detector location and raw instrument response?

2. What methods do you use to calculate scan minimum detectable concentrations to ensure sufficient sensitivity to detect risk-significant levels of residual radioactivity or to better understand measurement uncertainty?

3. What methods have you used to post-process data to identify areas for follow-up investigation (*e.g.,* use of radiation surveys maps, and statistical tests and measures to identify anomalous radioactivity to be targeted for follow-up investigation)?

4. Have you experienced technical issues with data collection and analysis during previous surveys and what methods did you use to troubleshoot those issues? Do you have any lessons learned you could share related to the technical issues?

5. What areas do you see as challenges or gaps to radiological survey design and data analysis that could be addressed in future guidance (*e.g., a priori* scan minimum detectable concentrations calculation) or tool development (*e.g.,* data integration and post-processing)?

Questions Related to Subsurface Survey Design and Data Analysis

6. What types of instrumentation and approaches do you use to collect subsurface radiological survey data in the field? Specifically, what types of instrumentation and approaches has your organization used to perform surveys of hard to access locations in the subsurface (embedded piping, sumps, soils located at depth or underneath buildings, and bedrock)?

7. What types of methods and software (*e.g.,* geophysical methods and related software) have been used and subsurface data (*e.g.,* hard and soft data) have been collected, and what novel approaches have been used to combine or condition data to develop site conceptual models or mathematical models, or to show release criteria have been met?

8. What statistical approaches have you used to show subsurface residual radioactivity meets release standards including consideration of uncertainty (*e.g.,* number and depth of samples, type of data and statistical approaches used to demonstrate compliance)?

9. What approaches have you used to optimize subsurface survey designs including initial scoping to final status survey designs (*e.g.,* geometrical or geostatistical techniques)?

10. What areas do you see as challenges or gaps with respect to subsurface surveys and data analysis that could be addressed in future guidance or tool development?

Dated: May 1, 2023.

For the Nuclear Regulatory Commission.

Christepher A. McKenney,

Chief, Risk and Technical Analysis Branch, Division of Decommissioning, Uranium Recovery and Waste Programs, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 2023–09513 Filed 5–3–23; 8:45 am]

BILLING CODE 7590–01–P

POSTAL SERVICE

Product Change—Priority Mail, First-Class Package Service & Parcel Select Negotiated Service Agreement

AGENCY: Postal Service™.

ACTION: Notice.

SUMMARY: The Postal Service gives notice of filing a request with the Postal Regulatory Commission to add a domestic shipping services contract to the list of Negotiated Service Agreements in the Mail Classification Schedule's Competitive Products List.

DATES: *Date of required notice:* May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Sean C. Robinson, 202–268–8405.

SUPPLEMENTARY INFORMATION: The United States Postal Service® hereby gives notice that, pursuant to 39 U.S.C. 3642 and 3632(b)(3), on April 26, 2023, it filed with the Postal Regulatory Commission a *Request of the United States Postal Service to Add Priority Mail, First-Class Package Service & Parcel Select Contract 8 to Competitive Product List.* Documents are available at *www.prc.gov,* Docket Nos. MC2023–139, CP2023–141.

Sarah Sullivan,

Attorney, Ethics & Legal Compliance.

[FR Doc. 2023–09442 Filed 5–3–23; 8:45 am]

BILLING CODE 7710–12–P

POSTAL SERVICE

Product Change—Priority Mail Express, Priority Mail, First-Class Package Service, and Parcel Select Service Negotiated Service Agreement

AGENCY: Postal Service™.

ACTION: Notice.

SUMMARY: The Postal Service gives notice of filing a request with the Postal Regulatory Commission to add a domestic shipping services contract to the list of Negotiated Service Agreements in the Mail Classification Schedule's Competitive Products List.

DATES: *Date of required notice:* May 4, 2023.

FOR FURTHER INFORMATION CONTACT: Sean Robinson, 202–268–8405.

SUPPLEMENTARY INFORMATION: The United States Postal Service® hereby gives notice that, pursuant to 39 U.S.C. 3642 and 3632(b)(3), on April 28, 2023, it filed with the Postal Regulatory Commission a *USPS Request to Add Priority Mail Express, Priority Mail, First-Class Package Service, and Parcel Select Service Contract 116 to Competitive Product List.* Documents are available at *www.prc.gov,* Docket Nos. MC2023–140, CP2023–143.

Sarah Sullivan,

Attorney, Ethics & Legal Compliance.

[FR Doc. 2023–09437 Filed 5–3–23; 8:45 am]

BILLING CODE 7710–12–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97398; File No. SR–FINRA–2023–007]

Self-Regulatory Organizations; Financial Industry Regulatory Authority, Inc.; Notice of Filing of a Proposed Rule Change To Adopt Supplementary Material .18 (Remote Inspections Pilot Program) Under FINRA Rule 3110 (Supervision)

April 28, 2023.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'') [1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 14, 2023, the Financial Industry Regulatory Authority, Inc. (''FINRA'') 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 FINRA. 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

FINRA is proposing to amend FINRA Rule 3110 (Supervision) to adopt a voluntary, three-year remote inspections pilot program to allow member firms to elect to fulfill their obligation under paragraph (1) to Rule 3110(c) (Internal Inspections) by conducting inspections of some or all branch offices and locations remotely without an on-site visit to such office or location, subject to specified terms. As detailed below, the key terms would include, among others: (1) a requirement for a firm to conduct and document a risk assessment for inspecting an office or location remotely and providing a non-exhaustive list of factors to consider for this risk assessment; (2) criteria that would make a member firm ineligible to participate in the program; (3) conditions a member firm must satisfy before becoming a pilot program participant relating to the firm's recordkeeping system, and surveillance and technology tools; (4) criteria that would make ineligible for remote inspection certain member firm offices or locations; (5) conditions a member firm's office or location must satisfy to be able to undergo a remote inspection relating to electronic communications, correspondence, and books and records; (6) a requirement that a participating firm provide FINRA specified data and information on a quarterly basis; and (7) authorization for FINRA to determine in the public interest that a firm is no longer eligible to participate in the proposed program.

The proposed Remote Inspections Pilot Program would not change the current requirements under Rule 3110(c). Instead, the proposed program would provide firms the flexibility to satisfy their Rule 3110(c)(1) inspection obligation with or without an on-site visit to the office or location, subject to the proposed terms described herein. FINRA believes that proposed Rule 3110.18, on balance, preserves investor protection objectives through the proposed safeguards while also providing FINRA the opportunity to gauge the effectiveness of remote inspections as part of a modernized, reasonably designed supervisory system that reflects the current work environment and availability of technologies that did not exist when the on-site inspection originally was conceived.

Subject to further clarifications to proposed Rule 3110.18 as described below, the terms of the proposed rule change herein are largely similar to File No. SR–FINRA–2022–021 filed in July 2022,[3] then amended in December 2022 [4] (together, the ''2022 Remote Inspections Pilot Program Rule Filing''). FINRA withdrew File No. SR–FINRA–2022–021 on April 11, 2023 to consider whether more safeguards and clarifications to the filing would be appropriate in response to concerns raised by commenters.[5] This proposed rule change is organized in five sections: (1) the background, which provides a historical overview of Rule 3110(c), and discusses the environmental changes that have occurred over the years relating to technology and the workplace; (2) FINRA's observations of evolving inspection practices; (3) the emergence of remote inspections as a new approach to evaluation under Rule 3110(c)(1); (4) a description of the terms of the proposed rule change; and (5) an overview of FINRA's monitoring and compliance with proposed Rule 3110.18.

The text of the proposed rule change is available on FINRA's website at *http://www.finra.org,* at the principal

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 95452 (August 9, 2022), 87 FR 50144 (August 15, 2022) (Notice of Filing of File No. SR–FINRA–2022–021) (''Initial Rule Filing''); *see also* Exhibit 2a.

[4] *See* Securities Exchange Act Release No. 96520 (December 16, 2022), 87 FR 78737 (December 22, 2022) (Notice of Partial Amendment No. 1 to File No. SR–FINRA–2022–021) (''Amended Rule Filing''); *see also* Exhibit 2b.

[5] *See* Exhibit 2d.

office of FINRA 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, FINRA 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. FINRA 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

(I) Background

A. Overview

The responsibility of firms to supervise their associated persons is a critical component of broker-dealer regulation.[6] Member firms must supervise all of their associated persons, regardless of their location, compensation or employment arrangement, or registration status.[7] Rule 3110 requires a member, regardless of size or type, to have a supervisory system for the activities of its associated persons that is reasonably designed to achieve compliance with the applicable securities laws and regulations and FINRA rules, and sets forth the minimum requirements for such supervisory system.[8] The internal inspection obligation under Rule 3110(c) is one component of such system.

Before the adoption of Rule 3110(c) in its current form as described below, FINRA's (then NASD's) Rules of Fair Practice[9] required a member firm to review the activities of each office including the periodic examination of customer accounts to detect and prevent irregularities and abuses and at least an annual inspection of each OSJ.[10] Subsequently, FINRA expanded the review requirement to include not only the activities of each office, but also the businesses in which a member firm engages.[11]

The expanded review requirement included, among other things, an inspection of branch offices in accordance with a schedule as set forth in the member's supervisory procedures.[12] This expansion was intended to address concerns about the adequacy of ongoing supervision and regular examination of associated persons engaged in the offer and sale of securities to the public at locations away from a member firm's office.[13] FINRA guidance during this period of supervisory change focused on the need for the effective supervision of the securities-related activities of ''off-site representatives,'' and advised firms of the importance of not only reviewing their supervisory systems and procedures to ensure that they were current and adequate, but also conducting inspections to determine whether these systems and procedures were being followed.[14] Further, the guidance advised firms that an inspection should include, among other things, a ''review of any on-site customer account documentation and other books and records, meetings with individual registered representatives to discuss the products they are selling and their sales methods, and an examination of correspondence and sales literature.''[15]

The guidance about the effective supervision of ''off-site representatives'' and what an inspection entailed was pragmatic at a time when business activities were conducted primarily using paper documents[16] that were created and stored locally at an office or location; registered persons were interacting with their customers largely through in-person meetings, paper-based correspondence transmitted through the postal service, and landline telephone calls; and supervisory personnel were conducting supervision through manual reviews of paper files (*e.g.,* exception reports bearing a supervisor's handwritten comments and initials or signature). In that environment, the best practice to determine whether the firm's supervisory system and procedures were being followed was through having firm compliance personnel visit the office or location. This practice has remained the prevailing means to satisfy the inspection obligation under Rule 3110(c)(1).

Currently, Rule 3110(c) sets forth three main requirements for inspections. First, an inspection of an office or location must occur on a designated frequency. The periodicity of the required inspection varies depending on the classification of the location or the nature of the activities that take place: OSJs and supervisory branch offices must be inspected at least annually;[17] non-supervisory branch offices, at least every three years;[18] and non-branch locations, on a periodic schedule, presumed to be at least every three years.[19] Second, a member must retain a written record of the date upon which each review and inspection occurred, reduce a location's inspection to a written report and keep each inspection report on file either for a minimum of

[6] *See generally* SEC Division of Market Regulation, Staff Legal Bulletin No. 17: Remote Office Supervision (March 19, 2004) (''SLB 17'') (SEC guidance on remote office supervision), *https://www.sec.gov/interps/legal/mrslb17.htm;* and *Regulatory Notice* 11–54 (November 2011) (''*Notice* 11–54'') (joint SEC and FINRA guidance on effective policies and procedures for broker-dealer branch inspections).

[7] This obligation is consonant with Sections 15(b)(4)(E) and 15(b)(6)(A) of the Exchange Act. Section 15(b)(4)(E) provides that the: ''Commission, by order, shall censure, place limitations on the activities, functions, or operations of, suspend for a period not exceeding twelve months, or revoke the registration of any broker or dealer if it finds . . . that such broker or dealer . . . or any person associated with such broker or dealer . . . has willfully aided, abetted, counseled, commanded, induced, or procured the violation by any person of any provision of the Securities Act of 1933, the Investment Advisers Act of 1940, the Investment Company Act of 1940, the Commodity Exchange Act, [the Securities Exchange Act of 1934], the rules or regulations under any of such statutes, or the rules of the Municipal Securities Rulemaking Board, or has failed reasonably to supervise, with a view to preventing violations of the provisions of such statutes, rules, and regulations, another person who commits such a violation, if such other person is subject to his supervision.'' 15 U.S.C. 78*o*(b)(4)(E). Section 15(b)(6)(A)(i) parallels Section 15(b)(4)(E) and provides for the imposition of sanctions against persons associated with a broker or dealer that violates those statutes, rules and regulations enumerated in Section 15(b)(4)(E) and other specified subparagraphs under Section 15(b)(4). 15 U.S.C. 78*o*(b)(6)(A).

[8] *See* Rule 3110(a).

[9] Then NASD adopted its Rules of Fair Practice when it was founded in 1939 under provisions of the 1938 Maloney Act amendments to the Exchange Act.

[10] *See Notice to Members* 87–41 (June 1987) (''*Notice* 87–41'') (setting forth the proposed rule text changes to Article III, Section 27 of the NASD Rules of Fair Practice for the review and annual inspection requirement, among other provisions).

[11] *See Notice to Members* 88–84 (November 1988) (''*Notice* 88–84'').

[12] *See Notice* 88–84. By 2004, the requirement to inspect a branch office in accordance with a regular schedule as set forth in the member's supervisory procedures was replaced by mandatory inspection cycles as set forth under Rule 3110(c)(1). *See Notice to Members* 04–71 (October 2004).

[13] *See Notice* 88–84.

[14] *See Notice to Members* 99–45 (June 1999) (''*Notice* 99–45'').

[15] *See* Notice to Members 98–38 (May 1998) (''*Notice* 98–38'') and *Notice* 99–45; *see also* Notice to Members 86–65 (September 1986) (''*Notice* 86–65'').

[16] Paper-based documents included, for example, customer account opening documents; correspondence with customers; marketing materials; communications from registered persons to the firm; order tickets; checks received and forwarded; and fund transmittal records.

[17] *See* Rule 3110(c)(1)(A).

[18] *See* Rule 3110(c)(1)(B).

[19] *See* Rules 3110(c)(1)(C) and 3110.13 (General Presumption of Three-Year Limit for Periodic Inspection Schedules).

three years or, if the location's inspection schedule is longer than three years, until the next inspection report has been written.[20] If applicable to the location being inspected, the inspection report must include the testing and verification of the member's policies and procedures, including supervisory policies and procedures, in specified areas.[21] Third, to prevent compromising the effectiveness of inspections due to conflicts of interest, the rule requires a member to ensure that the person conducting the inspection is not an associated person assigned to the location or is not directly or indirectly supervised by, or otherwise reporting to, an associated person assigned to that location.[22] All branch offices and non-branch locations are subject to Rule 3110(c).

Further, Rule 3110.12 (Standards for Reasonable Review) sets out factors that constitute a reasonable review. This provision emphasizes establishing reasonable supervisory procedures and conducting reviews of locations, taking into consideration, among other things, the member's size, organizational structure, scope of business activities, number and location of the member's offices, the nature and complexity of the products and services offered by the member, the volume of business done, the number of associated persons assigned to a location, the disciplinary history of registered representatives or associated persons, and any indicators of irregularities or misconduct (*i.e.,* ''red flags'').[23] The provision further states that the procedures established and reviews conducted must provide that the quality of supervision at remote (*i.e.,* geographically dispersed) locations is sufficient to ensure compliance with applicable securities laws and regulations and with FINRA rules, and that members must be especially diligent with respect to a non-branch location where a registered representative engages in securities activities. This provision incorporates guidance FINRA has previously issued about supervising associated persons working in geographically dispersed offices.[24]

In 2004, the SEC staff similarly provided guidance to broker-dealers on supervision principles.[25] At that time, the SEC staff noted that small, geographically scattered offices presented supervisory challenges when they were not subject to on-site supervision. The SEC staff observed that an office's geographic distance from supervisory personnel could make it easier for registered persons and other employees to carry out and conceal violative conduct. This general observation was derived from SEC enforcement cases finding that firms had inadequately supervised their associated persons working in small, geographically distant offices due to the failure of their supervisory mechanisms to detect and prevent misconduct. Citing technology available at the time, the guidance emphasized that an effective supervisory system for geographically dispersed offices uses a combination of on-site and off-site monitoring; it specifically said that ''[c]entralized technology to monitor the trading and handling of funds in remote office accounts, as well as the use of personal computers, helps detect misappropriation of customer funds, selling away, and unauthorized trading, among other things[.]'' [26] The guidance supported both routine or ''for cause'' on-site inspections, and encouraged unannounced inspections either on a random basis or where there are red flags about unusual activity at those offices. Further, SEC staff and FINRA issued joint guidance that included a FINRA interpretation of Rule 3110(c)(1) requiring member firms to conduct on-site inspections of branch offices and unregistered offices (*i.e.,* non-branch locations) and stating that the inspection process is an element of a firm's compliance and reasonable supervision of its offices and locations, and personnel, and a component of a firm's risk management program.[27] In the joint guidance, the SEC and FINRA also articulated that the ''inspection provides the firm with the opportunity to validate its surveillance results from branch offices and to gather on-site intelligence that supplements the ongoing management and surveillance of the branch from a business and risk management standpoint.'' [28] Since the time these in-person guidelines were expressed, workplace models have changed significantly and developments in technology have enhanced firms' overall and ongoing supervision and monitoring of the activities occurring at branch offices and non-branch locations. In response to these developments, member firms have questioned the historical expectation that firms satisfy the inspection component of Rule 3110(c) in a physical, on-site manner.

B. Environmental Changes Support Revision of In-Person Supervisory Conventions Relating to Rule 3110(c)(1)

Over the years, widespread advancements in technology and communications in the financial industry have significantly changed the way in which members and their associated persons conduct their business and communicate, including the practices that formed the original bases for the on-site inspection. For

[20] *See* Rule 3110(c)(2).

[21] *See* Rule 3110(c)(2)(A) (providing that the inspection report must include, without limitation, the testing and verification of the member's policies and procedures, including supervisory policies and procedures for: (1) safeguarding of customer funds and securities; (2) maintaining books and records; (3) supervision of supervisory personnel; (4) transmittals of funds from customers to third party accounts, from customer accounts to outside entities, from customer accounts to locations other than a customer's primary residence, and between customers and registered representatives, including the hand delivery of checks; and (5) changes of customer account information, including address and investment objectives changes, and validation of such changes).

[22] Rule 3110(c)(3) provides a limited exception from this requirement if a firm determines compliance is not possible either because of the firm's size or its business model. Rule 3110.14 (Exception to Persons Prohibited from Conducting Inspections) reflects FINRA's expectation that a firm generally will rely on the exception in instances where the firm has only one office or has a business model where small or single-person offices report directly to an OSJ manager who is also considered the offices' branch office manager. However, these situations are non-exclusive, and a firm may still rely on the exception in other instances where it cannot comply because of its size or business model, provided the firm complies with the documentation requirements under the rule.

[23] Such red flags may include: customer complaints; a large number of elderly customers; a concentration in highly illiquid or risky investments; an unexplained increase or change in the types of investments or trading concentration that a representative is recommending or trading; an unexpected improvement in a representative's production, lifestyle, or wealth; questionable or frequent transfers of cash or securities between customer or third party accounts, or to or from the representative; a representative that serves as a power of attorney, trustee or in a similar capacity for a customer or has discretionary control over a customer's account(s); a representative with disciplinary records; customer investments in one or a few securities or class of securities that is inconsistent with firm policies related to such investments; churning; trading that is inconsistent with customer objectives; numerous trade corrections, extensions, liquidations; or significant switching activity of mutual funds or variable products held for short time periods. *See* SLB 17, *supra* note 6; *see also Notices* 98–38 and 99–45.

[24] *See, e.g., Notices* 98–38 and 99–45.

[25] *See* SLB 17, *supra* note 6.

[26] *See* SLB 17, *supra* note 6.

[27] *See Notice* 11–54 (stating, in part, a ''broker-dealer must conduct on-site inspections of each of its office locations; [OSJs] and non-OSJ branches that supervise non-branch locations at least annually, all non-supervising branch offices at least every three years; and non-branch offices periodically.''). *See also* SLB 17 (stating, in part, that broker-dealers that conduct business through geographically dispersed offices have not adequately discharged their supervisory obligations where there are no on-site routine or ''for cause'' inspections of those offices), *https://www.sec.gov/interps/legal/mrslb17.htm.*

[28] *See Notice* 11–54.

example, making and preserving records electronically have increasingly become the norm and the preferred recordkeeping medium rather than paper (*e.g.,* cloud based storage); communications between and among members, their associated persons and customers commonly take place through email, video or online meeting programs (*e.g.,* WebEx, Zoom) that can be monitored electronically by firms;[29] processes for opening customer accounts and placing trades are moving to online platforms; and customer funds and securities are frequently and increasingly transmitted electronically rather than in physical form (*e.g.,* Venmo, Zelle). Relatedly, the challenges in supervising associated persons who work in outlying offices or locations (*i.e.,* ''off-site representative'') have been mitigated over the years with the prevalent and effective use of technology. For example, supervisory reviews for outside business activities of registered persons are often conducted through general internet searches, including social media and online public records, and by reviewing electronic communications and customer fund transfers. Similarly, reviews of correspondence, customer funds and securities, and order flows are accomplished primarily through the use of electronic tracking programs or applications.

In addition, the progressive digitization of firm data and the centralization of control functions have converged, with significant advantages for a firm's supervision of its business, including monitoring of an associated person's activities and conducting inspections. Today, many firms capture the lifecycle of an associated person's activities with a firm, as well as a customer's interactions with the firm, in digital audit trails. Such activities include, for example, information about associated persons and customers obtained at the account opening process; communications between associated persons and customers or among associated persons; order and trade activity; and money and security movements in customer accounts. As a result, a firm can monitor the activities of its associated persons and customers continuously, on a real-time or near-real time basis, and react promptly to actual or potential exceptions to routine behaviors, rather than depend on a ''point-in-time'' office inspection visit on a prescribed schedule.

Further, increased digitization has centralized elements of firm compliance and supervisory functions, and these centralized functions have become the front line in supervision and surveillance. Rather than having a firm's compliance personnel walk around an office or location during an inspection to identify potential problems or to gather on-site intelligence—an approach that relies on chance encounters such as overhearing an associated person making a sales pitch to a customer for a product a firm is not approved to sell or observing an associated person cutting and pasting a customer signature onto a form—digitization now allows a firm to readily ''walk around the data,'' reducing the member's dependence on on-site intelligence because most of activities occurring at an office or location are electronically captured. The technology-driven environment has provided firms the opportunity to develop a more holistic view of a firm's risk management programs, fostering a more efficient and timely response to areas of concern. For example, centralized control functions strengthen supervision by enabling a firm to implement more frequent or ongoing, repeatable, consistent, and highly scalable approaches to analyzing the activities of associated persons across dispersed offices and locations, creating a level of process discipline not previously achievable in the past. These centralized control functions allow a firm to identify potential areas of concern, and implement targeted solutions or preventative measures in a more timely manner. For example, a fraud specialist team may identify a new fraud scenario and then promptly implement a new surveillance pattern to identify red flags for this behavior throughout the firm. A firm may also use in-house or vendor-created technologies to regularly adjust and ''right size'' its surveillance alerts and patterns. For example, a firm may quickly adjust its email review lexicons to surveil communications relating to any topic or term.

FINRA notes that firms are turning to new and innovative regulatory tools such as artificial intelligence, natural language processing, and robotics process automation, among others, to strengthen their compliance programs.[30] Over the last few years, firms have questioned the benefits and practicalities of the need to conduct an inspection in an on-site manner for each office and location, particularly in light of these significant technological advances that have not only changed the way in which firms conduct business and communicate, but also enhanced the effectiveness and efficiencies of a firm's overall and ongoing supervision and monitoring of the activities occurring at their offices and locations.[31]

C. Impact of the Pandemic on Workplace Arrangements, and Diversity, Equity and Inclusion

The COVID–19 pandemic, identified in early 2020,[32] has had a profound and lasting impact on workplace arrangements, and brought focus to the integrity of firms' supervisory systems in a more dispersed work environment. The pandemic accelerated the use of a wide variety of compliance and workplace technology as many government and private employers, including member firms, were driven to adopt a broad remote work environment by quickly moving their employees out of their usual office setting to an alternative worksite such as a private residence. Insights obtained from member firms and other industry representatives through various pandemic-related initiatives and other industry outreach have led FINRA to carefully consider whether some processes and rules, including the manner in which a firm may satisfy its Rule 3110(c)(1) obligations, should be

[29] Many customers now expect their primary mode of interaction with their firm to be digital. In a study to learn about investors who, during year 2020, entered into the markets using taxable, non-retirement investment accounts, FINRA found that nearly half (48%) of ''new investors,'' investors who opened a non-retirement investment account during 2020, indicated that they accessed their account primarily through a mobile app, and three-quarters (75%) of ''holdover account owners,'' investors who maintained a taxable investment account opened before year 2020, indicated they accessed their account primarily through a website. *See generally* FINRA Investor Education Foundation & NORC, Consumer Insights: Money & Investing, Investing 2020: New Accounts and the People Who Opened Them at 11 (February 2021), *https://www.finrafoundation.org/sites/finrafoundation/files/investing-2020-new-accounts-and-the-people-who-opened-them_1_0.pdf.*

[30] *See generally* FINRA White Paper, Technology Based Innovations for Regulatory Compliance (''RegTech'') in the Securities Industry (September 2018), *https://www.finra.org/sites/default/files/2018_RegTech_Report.pdf.*

[31] Some firms have indicated, for example, that technology has enhanced real time monitoring of their associated persons by providing the ability for firm compliance personnel to join, on an ad hoc basis, digital or virtual meetings occurring between the firm's associated persons and customers. Firms have also indicated that technology has allowed them to impose various restrictions or limitations on associated persons, such as the ability to print firm records from remote locations using a firm-issued laptop, and only accepting electronic payments from customers.

[32] *See* Centers for Disease Control and Prevention (''CDC''), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD–10–CM) (Effective March 18, 2020), *https://www.cdc.gov/nchs/data/icd/Announcement-New-ICD-code-for-coronavirus-3-18-2020.pdf. See also* WHO Director-General's Opening Remarks at the Media Briefing on COVID–19 (March 11, 2020), *https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020.*

modernized.[33] Technological improvements and developments in regulatory compliance have provided more tools than before to create more effective and efficient compliance programs. To that end, FINRA believes that regulatory models should evolve to benefit from the availability and use of effective technology tools. The SEC's recent Strategic Plan similarly recognized that ''[t]echnology and business models are always changing, and it is important for [the SEC] to evolve in kind[,]'' and expressed the overall need to ''[u]pdate existing SEC rules and approaches to reflect evolving technologies, business models, and capital markets.'' [34] With the confluence of advances in compliance technology and the shift to hybrid work environments, FINRA believes that the optimal use of on-site inspections deserves further consideration as part of the overall effort to modernize FINRA rules to reflect evolving technologies and business models.[35] As such, FINRA believes it is appropriate now to assess possible longer-term rule changes and is, therefore, proposing a voluntary, three-year remote inspections pilot program. This program would provide FINRA with specific, structured data from pilot program participants to evaluate impacts—positive and negative—on inspection findings and to systematically assess the overall impact on firms' supervisory systems, which has not been feasible with information drawn from the pandemic-related office shutdowns. Moreover, the proposed pilot program would maintain effective supervision by firms through the ongoing supervisory obligations under Rule 3110, and the proposed limitations on the firms and locations that would be eligible to participate in the proposed pilot program. FINRA emphasizes that the proposed pilot program is not intended to signal the abandonment of on-site inspections, but to assess the effectiveness and efficiency of additional approaches, subject to specified controls, for firms to meet their inspection obligations under Rule 3110(c)(1) while still preserving the investor protection objectives of the rule.

Firms have also conveyed that the flexibility of hybrid work has made a positive impact in attracting more diverse talent and retaining existing talent. These views are consistent with those expressed by several commenters in response to the Initial Rule Filing.[36] For example, several commenters to the Initial Rule Filing noted the positive impact that proposal was expected to have on workplace flexibility and hiring efforts that would enhance talent recruitment and retention in the financial industry, particularly with respect to diversity and inclusion initiatives.[37] In general, the U.S. workforce has increasingly demanded greater workplace flexibility and the securities industry is subject to the same national pressures as it aims to recruit and retain diverse, talented and qualified employees, especially supervisors essential to a reasonably designed supervisory program.[38] Notably, the SEC has also indicated that it needed to ''harness the benefits of telework as highlighted during the pandemic[.]'' [39]

(II) FINRA's Observations of Evolving Inspection Practices

Over the last decade, FINRA has observed that the widespread advances in technology in the financial industry, including the progressive digitization of data and the centralization of control functions, have given firms the greater ability to continuously monitor for, identify and investigate atypical behaviors or patterns. With this evolution, the importance of on-site inspections as a primary means to identify non-compliant conduct at all offices and locations has seemingly diminished. Inspection practices that previously depended on an on-site presence at an office or location included, for example, reviewing paper-based books and records (*e.g.,* logs or blotters reflecting transmittals of funds and securities, and paperwork related to new customer accounts); testing the implementation of controls at the office or location relating to the security of checks and stock certificates, the security of an office or location itself (*e.g.,* secured file cabinets containing paper-based books and records); reviewing how supervisors perform their functions such as ensuring that an associated person's uniform form filings were current and accurate; and looking for physical signs of an associated person's outside business activities that were unreported to the firm or a lifestyle that did not align with the associated person's compensation or production levels.

As firms are working in a progressively more digitized environment and operating under a system of controls that has become more centralized, FINRA has observed that in general, much of the work traditionally associated with an on-site inspection takes place before the on-site visit. For example, efforts to investigate potential undisclosed outside business activities or evidence of a registered person's lifestyle that may not be commensurate with the person's revenue production at the firm are accomplished through general internet searches of social media and public records; and irregular customer account activity, trading activity, and written communications are reviewed through the firm's electronic systems. The pandemic has revealed the pragmatism of satisfying

[33] *See generally* FINRA's Key Topic: COVID–19/Coronavirus (referencing, among other things, Frequency Asked Questions, temporary amendments to FINRA rules, and *Regulatory Notices* such as *Regulatory Notices* 20–08 (March 2020) (''*Notice* 20–08''), regarding pandemic-related business continuity planning, guidance and regulatory relief to member firms from some requirements, including the temporary suspension of the requirement to maintain updated information on Form U4 (Uniform Application for Securities Industry Registration or Transfer) and submit Form BR (Uniform Branch Office Registration Form) for temporary locations; 20–16 (May 2020) (''*Notice* 20–16''), describing practices implemented by firms to transition to, and supervise in, remote work environment during the COVID–19 pandemic; 20–42 (December 2020) (''*Notice* 20–42''), seeking comment on lessons from the pandemic; and 21–44 (December 2021), regarding business continuity planning and lessons from the pandemic, *https://www.finra.org/rules-guidance/key-topics/covid-19). See also* SEC Press Release 2022–112 (June 22, 2022) for the Spring 2022 Regulatory Agenda (quoting SEC Chair Gary Gensler: ''When I think about the SEC's agenda, I'm driven by two public policy goals: continuing to drive efficiency in our capital markets and modernizing our rules for today's economy and technologies.''), *https://www.sec.gov/news/press-release/2022-112?utm_medium=email&utm_source=govdelivery.*

[34] *See* SEC, Strategic Plan for fiscal years 2022 to 2026 (November 23, 2022), *https://www.sec.gov/files/sec_strategic_plan_fy22-fy26.pdf.*

[35] FINRA notes one state regulator has issued a policy statement, acknowledging that ''more businesses have adapted practices, hired employees, and instituted other changes to their compliance initiatives which have allowed then to adapt to working from a remote setting.'' As a result, the state securities commissioner concluded that a ''full and thorough Branch Inspection conducted remotely may allow broker-dealers similar opportunity to monitor practices and ensure regulatory compliance when compared with in-person Branch Inspections.'' Through this policy statement, a broker-dealer registered in the state may satisfy that state's branch office examination requirements through remote inspections by using mediums such as video conference and digital file sharing. *See* Indiana Secretary of State Securities Division, Statement of Policy Regarding Broker-Dealer Branch Office Examinations in 2023 (January 13, 2023), *https://securities.sos.in.gov/sop-bd-branch-exams-2023.*

[36] *See* Exhibit 2c.

[37] *See* Exhibit 2c.

[38] *See, e.g.,* McKinsey & Company, Americans are embracing flexible work—and they want more of it (June 23, 2022) (highlighting survey results that 58 percent of U.S. workers, an estimated 92 million people, shared that they can work remotely at least part of the time, and that when employees are given the option to work remotely, 87 percent of employees chose to do so), *https://www.mckinsey.com/industries/real-estate/our-insights/americans-are-embracing-flexible-work-and-they-want-more-of-it#/.*

[39] *See* note 34, *supra.*

Rule 3110(c)(1) through an on-site process in a technological environment that is vastly different from the environment in which the office review requirement was expanded in the 1980s. In engagement with industry representatives, particularly in recent years, some firms have shared with FINRA that the variance between their rates of inspection findings through an on-site process and findings through a remote process were not material. These firm observations align with the observations some commenters conveyed in response to the Initial Rule Filing.[40] Moreover, FINRA's experience examining firms' remote inspection programs also aligns with these observations.

In 2022, FINRA examined several firms, including those that operate under an independent contractor business model and others with branch office networks, to test their compliance with Rule 3110.17, the temporary provision that provides firms the option, subject to the specified requirements under that supplementary material, to complete their calendar year inspection obligations remotely without an on-site visit to the office or location.[41] The targeted examinations assessed firms' implementation of their remote inspection processes and the effectiveness of their supervisory systems. FINRA found that, in general, these systems were effective in supporting remote branch office inspections. Of the examinations completed for Rule 3110.17 compliance, approximately 43% resulted in no findings and 21% identified findings that were operational in nature and did not raise concerns of customer harm, while 36% of the examinations remain ongoing. In addition to engaging in ongoing surveillance of activities, FINRA observed that firms were using, among other inspection tools, ''pre-audit'' questionnaires to assess the risk level of a branch office and determine the frequency of inspections (remote or on-site) on an announced or unannounced basis. In addition, FINRA observed firms making broad use of technology to supervise the activities of their associated persons remotely to: identify undisclosed private securities transactions and outside business activities; identify problematic electronic communications; surveil trades and movements of customer assets; conduct interviews with supervisors and other associated persons assigned to the office or location; take and record online office tours; and review associated persons' computers in real-time using tools such as remote desktop software. FINRA's overall examination findings in recent years across all firm examinations conducted during the period in which firms were conducting fully remote inspections or operating in a fully remote or hybrid work environment, have remained within the bounds of general norms.[42]

(III) The Emergence of Remote Inspections as a New Approach To Evaluate Under Rule 3110(c)(1)

A. The 2017 Proposal To Allow Remote Inspections and the Impact From the Pandemic

Even prior to the pandemic, in 2017, FINRA considered a proposal to give firms the option of satisfying the inspection requirement remotely for ''qualifying offices'' that met specified criteria.[43] However, the pandemic significantly changed the industry's standard business operations, forcing member firms to adapt to a full remote work environment and implement remote supervisory practices.[44] Consequently, FINRA deferred the 2017 Proposal in light of the pressing need to address significant operational disruptions to the securities industry, regulators, impacted member firms, investors and other stakeholders. During this exigent period, FINRA responded to numerous issues and questions that urgently arose.[45] Following up on these actions, FINRA published *Notice* 20–42 to gain a broader understanding of member firm experiences during the pandemic. This notice sought feedback from firms about their experiences in a range of areas, including how member firms' operations and business models changed during the public health crisis and how they might further evolve as the pandemic persisted. Other initiatives included sharing general practices of firms in transitioning and supervising in the remote work environment, and providing temporary relief to member firms from specified FINRA rules and requirements. In particular, to give firms an opportunity to better manage their operational challenges and redirect resources attendant to fulfilling their inspection obligations, FINRA provided temporary relief to member firms pertaining to Rule 3110(c).[46]

B. Temporary Amendments to the Inspection Requirement Under Rule 3110(c)

The ensuring pandemic-related operational changes made it impracticable for member firms to conduct the on-site inspection component of Rule 3110(c) at most offices and locations because of limitations on travel to geographically dispersed OSJs, branch offices, and non-branch locations. In response to the logistical challenges, FINRA extended the time by which member firms were required to complete their calendar year 2020 inspection obligations under Rule 3110(c) to March 31, 2021 with the expectation that the extension did not relieve firms from the on-site portion of the inspections of their offices and locations.[47] However, health and safety concerns remained unabated and with many restrictive measures still in place as calendar year 2020 was ending, FINRA adopted Rule 3110.17 to provide member firms the option, subject to specified requirements under the supplementary material, to complete remotely their calendar year inspection obligations without an on-site visit to the office or location.[48] This relief was repeatedly extended and currently, Rule 3110.17 will automatically sunset on December 31, 2023.[49]

Through comments to the 2017 Proposal, *Notice* 20–42, the various temporary amendments to Rule 3110, and other engagement with industry representatives, firms have highlighted

[40] *See* Exhibit 2c.

[41] *See* Securities Exchange Act Release No. 96241 (November 4, 2022), 87 FR 67969 (November 10, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2022–030). *See also* Item II.A.1.(III)B. for further discussion.

[42] FINRA notes that examination findings that were attributable to complying with a new regulation adopted by the SEC, for example, are separate from this general view.

[43] *See Regulatory Notice* 17–38 (November 2017) (''2017 Proposal''). FINRA requested comment on a proposed amendment to Rule 3110 to allow remote inspections of ''qualifying offices'' that met specified criteria, in lieu of on-site inspections of such offices and locations. In general, many of the comment letters FINRA received expressed support for the underlying concept of remote inspections and offered recommendations on specific criteria to broaden the potential population of qualifying offices.

[44] *See generally Notice* 20–16.

[45] *See* note 33, *supra.*

[46] *See* Rules 3110.16 and 3110.17.

[47] *See* Securities Exchange Act Release No. 89188 (June 30, 2020), 85 FR 40713 (July 7, 2020) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2020–019).

[48] *See* Securities Exchange Act Release No. 90454 (November 18, 2020), 85 FR 75097 (November 24, 2020) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2020–040).

[49] *See* Securities Exchange Act Release No. 93002 (September 15, 2021), 86 FR 52508 (September 21, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2021–023); Securities Exchange Act Release No. 94018 (January 20, 2022), 87 FR 4072 (January 26, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2022–001); and Securities Exchange Act Release No. 96241 (November 4, 2022), 87 FR 67969 (November 10, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2022–030).

that technological advances, as described above, have allowed a large portion of the inspection work to be conducted electronically, prior to any on-site visit to the office and location, and that in general, inspecting offices and locations in accordance with Rule 3110(c)(1) through a compulsory on-site process is not an efficient and effective use of limited firm resources.[50]

Rule 3110.17 was adopted in the midst of the pandemic, when many offices and locations were forced to close to allow employees to carry on with their responsibilities from alternative worksites. This relief has been extended as pandemic concerns continued.[51] FINRA recognizes that the pandemic has changed the conventional thinking on where work is conducted and this shift in the workforce landscape will unlikely revert to the model that existed pre-pandemic.

C. The 2022 Remote Inspections Pilot Program Rule Filing (File No. SR–FINRA–2022–021)

Based on the foregoing, in July 2022, FINRA filed the Initial Rule Filing to amend Rule 3110 to adopt proposed Rule 3110.18 to establish a voluntary, three-year remote inspection pilot program, under terms based largely on Rule 3110.17, but with significant safeguards that would have allowed FINRA the opportunity to collect specified data from pilot program participants to evaluate their experiences and inspection findings in a uniform, comparable manner in the context of then emerging hybrid work model. The SEC twice published the Initial Rule Filing for public comment, which elicited responses from many individuals, broker-dealers, law schools, and trade organizations and other associations, including the Securities Industry and Financial Markets Association, the North American Securities Administrators Association, Inc. (''NASAA'') and the Public Investors Advocate Bar Association (''PIABA'').[52] The SEC received over 30 comment letters during the course of the two comment periods.[53] Most of the comment letters expressed support for the overall objectives of the proposal, and many commenters viewed the proposal as a step towards FINRA rule modernization, and having a positive impact on diversity and inclusion initiatives.[54] However, four commenters, which included NASAA and PIABA, raised concerns with the Initial Rule Filing.[55] NASAA and PIABA each submitted two comment letters expressing opposition to the Initial Rule Filing.[56] NASAA and PIABA asserted generally that the proposal would adversely impact investor protection due to, among other concerns: the adequacy and scope of the proposed pilot program's controls—the exclusions and conditions—to address higher-risk conduct; the identification of technologies firms would use to conduct their inspections remotely; the fundamental change to the approach of supervision; monitoring for pilot program compliance; and the lack of data to fully support the effectiveness of remote inspections.[57]

FINRA submitted a letter responding to comments [58] and filed the Amended Rule Filing in December 2022.[59] The Amended Rule Filing proposed to: (1) add specific risk criteria that a member must consider in making its risk-based evaluation of an office or location; (2) expand the list of exclusions that would make a member ineligible to participate in the proposed pilot program; (3) expand the list of exclusions that would make a specific office or location of a member ineligible for a remote inspection; (4) add express conditions that a member must satisfy to be eligible to conduct remote inspections of any of its offices or locations; (5) add express conditions that a specific office or location of a member must satisfy to be eligible for a remote inspection; and (6) add a new provision to allow FINRA to make a determination in the public interest and for the protection of investors that a member is no longer eligible to participate in the proposed pilot program for failing to comply with the requirements of proposed Rule 3110.18. The SEC subsequently published the Amended Rule Filing for public comment,[60] and during the third comment period, the SEC received four more comment letters, including a third letter from NASAA, stating that in general, while the Amended Rule Filing was an improvement to the proposed pilot program, it still needed more guardrails with respect to the risk assessment; written supervisory procedures; the firm level condition relating to surveillance and technology tools; the data and information collection requirement; and FINRA's determination of ineligibility for pilot participation.[61] On April 11, 2023, FINRA withdrew File No. SR–FINRA–2022–021 from the SEC to consider whether more guardrails and clarifications to the filing would be appropriate in response to concerns raised by commenters.[62]

(IV) Proposed Voluntary, Three-Year Pilot Program for Remote Inspections

Proposed Rule 3110.18, which sets forth the terms of the proposed pilot program, would build largely on the terms of Rule 3110.17 and retain the key changes as proposed in the 2022 Remote Inspections Pilot Program Rule Filing, including the areas pertaining to the risk assessment, written supervisory procedures, the firm level condition relating to surveillance and technology tools, and FINRA's determination of ineligibility for pilot participation.[63] As detailed below, the proposed rule change would clarify proposed Rule 3110.18 in the areas pertaining to: (1) the frequency of FINRA's data and information collection from pilot program participants, and the type of ''findings'' that would be part of the collection; and (2) the location level ineligibility criterion for market making and trading activities.

FINRA anticipates that the proposed pilot program will provide broader systemized information to supplement

[50] In response to FINRA's proposed rule changes associated with Rule 3110.17, one commenter made similar points about the physical, on-site piece of the inspection process. This commenter stated that pre-pandemic, an on-site inspection of a branch office typically consisted of reviewing the lobby area of the office, the back office (to review safe contents, sales literature, daily operations logs containing account applications), signage, and the physical security of the office. *See* Letter from Carrie L. Chelko, Chief Compliance Officer, Fidelity Brokerage Services LLC (''Fidelity Brokerage'') & Norman L. Ashkenas, Chief Compliance Officer, National Financial Services LLC (''NFS'') and Fidelity Distributors Company LLC (''Fidelity Distributors''), to Vanessa Countryman, Secretary, SEC, dated July 28, 2020, in response to File No. SR–FINRA–2020–019, *https://www.sec.gov/comments/sr-finra-2020-019/srfinra2020019-7488701-221389.pdf,* and Letter from Gail Merken, Chief Compliance Officer, Fidelity Brokerage, Janet Dyer, Chief Compliance Officer, NFS & John McGinty, Chief Compliance Officer, Fidelity Distributors, to Vanessa Countryman, Secretary, SEC, dated February 16, 2022, in response to File No. SR–FINRA–2022–001, *https://www.sec.gov/comments/sr-finra-2022-001/srfinra2022001-20116307-267950.pdf.*

[51] *See* note 49, *supra.*

[52] *See* Submitted Comments to File No. SR–FINRA–2022–021, *https://www.sec.gov/comments/sr-finra-2022-021/srfinra2022021.htm.*

[53] *See* note 52, *supra.*

[54] *See* Exhibit 2c.

[55] *See* Exhibit 2c.

[56] *See* note 52, *supra.*

[57] *See* Exhibit 2c.

[58] *See* Exhibit 2c.

[59] *See* Exhibit 2b.

[60] *See* Securities Exchange Act Release No. 96520 (December 16, 2022), 87 FR 78737 (December 22, 2022) (Notice of Filing of Partial Amendment No. 1 to File No. SR–FINRA–2022–021).

[61] *See* Letter from Andrew Hartnett, President, NASAA, to Sherry R. Haywood, Assistant Secretary, SEC, dated January 12, 2023 (''NASAA III''), *https://www.sec.gov/comments/sr-finra-2022-021/srfinra2022021-20154758-323090.pdf.*

[62] *See* Exhibit 2d.

[63] FINRA is also proposing technical changes that would include, among others, reorganizing the presentation of the proposed rule.

the information obtained through the FINRA examination process in an environment where offices and locations were closed. The information firms would be required to produce as a pilot program participant will help FINRA more accurately assess the overall impact and effectiveness of remote inspections.

FINRA is wholly dedicated to ensuring effective firm supervision as a bulwark against misconduct or misadventure that could harm investors. To this end, FINRA has been in the forefront of developing strong supervision standards for member firms. As FINRA emphasized in the proposed rule change to adopt Rule 3110.17, the responsibility of firms to supervise their associated persons on a day-to-day basis is a critical component of broker-dealer regulation.[64] FINRA remains committed to ensuring that firms maintain a strong, effective supervisory system, of which the inspection requirement in Rule 3110(c) is a component. Moreover, this inspection requirement is just one facet of a reasonably designed supervisory system; the inspection process is one of several critical components of the broad supervisory process required of member firms to effectively oversee all of their associated persons, regardless of location, compensation or employment arrangement, or registration status. FINRA believes at this time that the proposed pilot program is consistent with a firm's core responsibility, as set forth in Rule 3110, to establish and maintain a system to supervise the activities of each associated person that is reasonably designed to achieve compliance with applicable securities laws and regulations, and with applicable FINRA rules. Thus, FINRA believes that the remote inspections pilot program's proposed controls and safeguards achieve a responsible balance preserving the investor protection objectives of the rule, while allowing FINRA and the industry to gather data to further evaluate the appropriate contours of the remote inspection construct. FINRA of course welcomes the insights of commenters as FINRA strives to further articulate an effective firm supervisory process.

A. Scope (Proposed Rule 3110.18(a))

Consistent with the 2022 Remote Inspections Pilot Program Rule Filing, proposed Rule 3110.18(a) would apply to the required inspections of OSJs, branch offices, and non-branch locations under the applicable provisions under Rule 3110(c)(1) for a pilot period of three years starting on the effective date, and expiring on a date that is three years after the effective date. If the proposed pilot program is not extended or Rule 3110.18, as may be amended, is not approved as permanent by the SEC, the proposed supplementary material would automatically sunset on a date that is three years after the effective date. In addition, proposed Rule 3110.18(a) would expressly state that members would not be able to participate in the proposed pilot program after it expires.

B. Risk Assessment (Proposed Rule 3110.18(b))

As described above, Rule 3110(c)(1) provides that an inspection of an office or location must occur on a designated frequency, and the periodicity of the required inspection varies depending on the classification of the location as an OSJ, branch office or non-branch location. Subject to the proposed provisions relating to written supervisory procedures, and the firm and location level requirements as described below, proposed Rule 3110.18(b)(1) would provide that a member firm may elect to conduct the applicable inspection of an office or location during the pilot period remotely, without necessarily an on-site visit for the office or location, when the member reasonably determines that the purposes of the rule can be accomplished by conducting such required inspection remotely.[65] To address the concerns raised by commenters to the Initial Rule Filing that a firm might not appropriately consider certain higher risk criteria in conducting its risk assessment, the Amended Rule Filing added a non-exhaustive list of factors that a firm must consider and document. FINRA is proposing to retain, without substantive change, those terms under proposed Rule 3110.18(b).

1. Standards for Reasonable Review (Proposed Rule 3110.18(b)(1))

Consistent with the 2022 Remote Inspections Pilot Program Rule Filing, proposed Rule 3110.18(b)(1) would provide that prior to electing a remote inspection for an office or location, rather than an on-site inspection, the firm must develop a reasonable risk-based approach to using remote inspections and conduct and document a risk assessment for that office or location. The assessment must document the factors considered, including the factors set forth in Rule 3110.12, and must take into account any higher risk activities that take place or higher risk associated persons that are assigned to that location. FINRA expects that higher risk factors at a particular location would cause a firm to conduct on-site inspections of such location. Further, under the proposed supplementary material, a member that is not eligible to conduct remote inspections under paragraphs (f) or (g) under proposed Rule 3110.18, pertaining to firm level and location level requirements, respectively, must conduct an on-site inspection of that office or location on the required cycle. Finally, notwithstanding the pilot program, a member would remain subject to the other requirements and limitations of Rule 3110(c).[66]

2. Other Factors To Consider for the Risk Assessment (Proposed Rule 3110.18(b)(2))

Consistent with the Amended Rule Filing, FINRA is proposing to set forth a non-exhaustive list of factors that a firm must consider and document as part of the risk assessment. Proposed Rule 3110.18(b)(2) would provide that in addition to the requirements under proposed Rule 3110.18(b)(1), a member would be required to consider other factors in making its risk assessment for remotely inspecting an office or location. These factors would include, among others: (1) the volume and nature of customer complaints; (2) the volume and nature of outside business activities, particularly investment-related; (3) the volume and complexity of products offered; (4) the nature of the customer base, including vulnerable adult investors; (5) whether associated persons are subject to heightened supervision; (6) failures by associated persons to comply with the member's written supervisory procedures; and (7) any recordkeeping violations. In addition, proposed Rule 3110.18(b)(2) would provide that, consistent with Rule 3110.12, members should conduct on-site inspections or make more frequent use of unannounced, on-site inspections for high-risk offices or locations or where there are indicators of irregularities or misconduct (*i.e.,* ''red flags.'').

In response to the Amended Rule Filing, NASAA recommended that in the absence of an affirmative on-site inspection requirement, a firm should be required to document its reasons for not conducting an on-site inspection of an office or location, particularly if high

[64] *See* note 48, *supra.*

[65] As described further below, a member firm that elects to participate in the proposed pilot program would be subject to the requirements of proposed Rule 3110.18 for a Pilot Year. *See* proposed Rule 3110.18(i).

[66] *See* notes 21 and 22, *supra,* and accompanying text.

risk factors or red flags are identified, or the office or location is a private residence.[67] FINRA believes that Rule 3110.18(b), as proposed herein, reflects NASAA's insight. As noted previously, FINRA emphasizes that the inspection requirement is but one part of a firm's overall supervisory system, and that the inspection, whether done remotely or on-site under the proposed pilot program, would be held to the existing standards of review under Rule 3110.12. Those standards provide, in part, that based on the factors set forth under that supplementary material, members ''may need to provide for more frequent review of certain locations.'' FINRA notes that proposed Rule 3110.18(b) would continue to account for the existing standards for reasonable review under Rule 3110.12 and retain the requirement for a firm, before electing a remote inspection for an office or location, to develop a reasonable risk-based approach to using remote inspections for its offices or locations, and conduct and document a risk assessment. In conducting the assessment, a firm must document the factors considered, including the factors set forth in Rule 3110.12, and must take into account any higher risk activities that take place or higher risk associated persons that are assigned to that office or location, irrespective of whether such office or location is a private residence. FINRA expects a firm to carefully consider the proposed factors listed above and Rule 3110.12 for the risk assessment. The outcome of such assessment may raise red flags that should prompt a firm to consider, among other things, more frequent inspections of an office or location—be they remote or on-site—than the schedule set forth under Rule 3110(c)(1) (on an announced or unannounced basis). Further, FINRA notes that Rule 3130 (Annual Certification of Compliance and Supervisory Processes) requires member firms to have processes to establish, maintain, review, test, and modify written compliance policies and written supervisory procedures reasonably designed to achieve compliance with applicable FINRA rules, Municipal Securities Rulemaking Board rules, and federal securities laws and regulations. FINRA expects firms to consider proposed Rule 3110.18 as part of their annual certification process under Rule 3130.

C. Written Supervisory Procedures for Remote Inspections (Proposed Rule 3110.18(c))

As part of an effective supervisory system tailored specifically to the member firm's business and the activities of all its associated persons, a member must establish and maintain written procedures.[68] Paragraph (1) (General Requirements) under Rule 3110(b) (Written Procedures) provides that a member must establish, maintain, and enforce written procedures to supervise the types of business in which it engages and the activities of its associated persons that are reasonably designed to achieve compliance with applicable securities laws and regulations, and with applicable FINRA rules.

Currently, Rule 3110.17(b) expressly provides that consistent with a member's obligation under Rule 3110(b)(1), a member that elects to conduct each of its inspections in the specified calendar years remotely must amend or supplement its written supervisory procedures to provide for remote inspections that are reasonably designed to assist in detecting and preventing violations of and achieving compliance with applicable securities laws and regulations, and with applicable FINRA rules. In addition, under Rule 3110.17(b), reasonably designed procedures for conducting remote inspection of offices or locations should include, among other things, a description of the methodology, including technologies permitted by the member, that may be used to conduct remote inspections. Further, such procedures should include the use of other risk-based systems employed generally by the member firm to identify and prioritize for review those areas that pose the greatest risk of potential violations of applicable securities laws and regulations, and of applicable FINRA rules.[69] To underscore the importance of Rule 3110(b)(1) in the context of the proposed pilot program, FINRA proposed in the 2022 Remote Inspection Pilot Program Rule Filing to add to the elements currently described under Rule 3110.17(b) an express provision that the firm must adopt written supervisory procedures regarding remote inspections that are reasonably designed to detect and prevent violations of and achieve compliance with applicable securities laws and regulations, and with applicable FINRA rules. In addition, a firm's written supervisory procedures should also include the factors considered in the risk assessment made for each applicable office or location pursuant to proposed Rule 3110.18(b).

In response to this proposed provision, NASAA stated that a firm's written supervisory procedures should require more prescriptive details such as specifying the technologies a firm would be using ''for what purposes[,]'' and providing evidence of firm personnel's accessibility to and proficiency with those technologies; describing the circumstances under which a firm would conduct an on-site inspection in the ''ordinary course'' and as a result of risk indicators and red flags; indicating ''whether the firm [intended] to conduct unannounced inspections, how the firm intend[ed] to do so remotely, and whether certain factors might influence the firm's decision to do so in particular [circumstances];'' and describing ''how [a] firm will use its remote inspection procedures to control for the possibility of active deception.''[70]

After considering the specific details recommended by NASAA, FINRA is proposing to largely retain the terms as proposed in the 2022 Remote Inspections Pilot Program Rule Filing as consistent with the tenor of other provisions of Rule 3110. Proposed Rule 3110.18(c) would provide that consistent with a member's Rule 3110(b) obligations, a member that elects to participate in the proposed remote inspection pilot program must adopt written supervisory procedures regarding remote inspections that are reasonably designed to detect and prevent violations of and achieve compliance with applicable securities laws and regulations, and with applicable FINRA rules. Further, under the proposed provision, reasonably designed procedures for conducting remote inspections of offices or locations must address, among other things: (1) the methodology, including technology, that may be used to conduct remote inspections; (2) the factors considered in the risk assessment made for each applicable office or location pursuant to proposed Rule 3110.18(b); (3) the procedures specified in paragraphs (h)(1)(G) and (h)(4) under

[67] *See* NASAA III.

[68] *See* Rule 3110(a)(1); *see generally Notice* 99–45 and *Regulatory Notice* 18–15 (April 2018).

[69] Offices or locations that may present a higher risk profile would include, for example, those that have associated persons engaging in activities that involve handling customer funds or securities, maintaining books and records as described under applicable federal securities laws and FINRA rules, order execution as principal or other activities that may be more susceptible to higher risks of operational or sales practice wrongdoing, or have associated persons assigned to an office or location who may be subject to additional or heightened supervisory procedures.

[70] *See* NASAA III.

proposed Rule 3110.18.[71] and (4) the use of other risk-based systems employed generally by the member firm to identify and prioritize for review those areas that pose the greatest risk of potential violations of applicable securities laws and regulations, and of applicable FINRA rules.

While the details identified by NASAA may be useful elements for firms to consider in devising reasonably designed procedures, FINRA believes that proposed Rule 3110.18(c), read in conjunction with proposed Rule 3110.18(d), as described below, would provide the appropriate level of direction for firms with respect to technology, the areas that written policies and procedures must address, and the use of other risk-based systems while also staying aligned with the principles underlying Rule 3110. FINRA expects firms to take into account the factors affecting their systems and businesses in crafting reasonably designed policies and procedures to achieve the purposes of the rule.

D. Effective Supervisory System (Proposed Rule 3110.18(d))

Consistent with the 2022 Remote Inspections Pilot Program Rule Filing, FINRA is proposing to retain the terms of Rule 3110.17(c), without substantive change, in proposed Rule 3110.18(d). Similar to Rule 3110.17(c), proposed Rule 3110.18(d) would expressly reiterate the principle that the requirement to conduct inspections of offices and locations is one part of the member's overall ongoing obligation to have an effective supervisory system, and therefore a member must maintain its ongoing review of the activities and functions occurring at all offices and locations whether or not the member conducts inspections remotely. In addition, proposed Rule 3110.18(d) would provide that a member's remote inspection of an office or location would be held to the same standards for review applicable to on-site inspections as set forth under Rule 3110.12.[72] Further, proposed Rule 3110.18(d) would provide that where a member's remote inspection of an office or location identifies any indicators of irregularities or misconduct (*i.e.,* ''red flags''), the member may need to impose additional supervisory procedures for that office or location, or may need to provide for more frequent monitoring or oversight of that office or location, or both, including potentially a subsequent physical, on-site visit on an announced or unannounced basis.

E. Documentation Requirement (Proposed Rule 3110.18(e))

In general, Rule 3110(c)(2) imposes various documentation requirements for inspections, including maintaining a written record of the date upon which each inspection is conducted. Currently, Rule 3110.17(d) requires supplemental documentation by a member that avails itself of the remote inspection option. The member must maintain and preserve a centralized record for each of calendar years specified in the supplementary material that separately identifies: (1) all offices or locations that had inspections that were conducted remotely; and (2) any offices or locations that the member determined to impose additional supervisory procedures or more frequent monitoring, as provided in Rule 3110.17(c). A member's documentation of the results of a remote inspection for an office or location must identify any additional supervisory procedures or more frequent monitoring for that office or location that were imposed as a result of the remote inspection.

Consistent with the 2022 Remote Inspections Pilot Program Rule Filing, FINRA is proposing to incorporate, without substantive change, the terms of Rule 3110.17(d) in proposed Rule 3110.18(e), while making two clarifying changes. One change would be to reference that the centralized record must be for each of the ''pilot years'' (as defined in proposed Rule 3110.18(l)), and the other change would be to clarify that a member's documentation of the results of a remote inspection for an office or location must identify any additional supervisory procedures or more frequent monitoring for that office or location that were imposed as a result of the remote inspection, including whether an on-site inspection was conducted at such office.

F. Firm Level Requirements (Proposed Rule 3110.18(f))

In the Initial Rule Filing, FINRA proposed to exclude some member firms from participating in the proposed pilot program. The categories of ineligibility were events or activities of a member firm that FINRA explained were more likely to raise investor protection concerns based on the firm's record of specified regulatory or disciplinary events. Some commenters to the Initial Rule Filing expressed general concerns relating to the adequacy and scope of those proposed controls—the exclusions and conditions—to address higher risk conduct.[73] In response to those concerns, the Amended Rule Filing proposed expanding the list of controls. The proposed rule change would retain, without substantive change, the criteria as set forth in the Amended Rule Filing.

1. Firm Level Ineligibility Criteria (Proposed Rule 3110.18(f)(1)

Under proposed Rule 3110.18(f)(1), a member firm would be ineligible to conduct remote inspections of any of its offices if any time during the pilot period, the member: (1) is or becomes designated as a Restricted Firm under Rule 4111 [74] (proposed Rule 3110.18(f)(1)(A)); (2) is or becomes designated as a Taping Firm under Rule 3170 [75] (proposed Rule 3110.18(f)(1)(B)); (3) receives a notice from FINRA pursuant to Rule 9557 regarding compliance with Rule 4110 (Capital Compliance), Rule 4120 (Regulatory Notification and Business Curtailment) or Rule 4130 (Regulation of Activities of Section 15C Members Experiencing Financial and/or Operational Difficulties) (proposed Rule 3110.18(f)(1)(C)); (4) is or becomes suspended from membership by FINRA (proposed Rule 3110.18(f)(1)(D)); (5) based on the date in the Central Registration Depository (''CRD®'') [76] had its FINRA membership become effective within the prior 12 months (proposed Rule 3110.18(f)(1)(E)); or (6) is or has been found within the past three years by the SEC or FINRA to have violated

[71] The areas specified in proposed Rule 3110.18(h)(1)(G) include the procedures for escalating significant findings, new hires, supervising brokers with a significant history of misconduct, outside business activities and doing business as designations, and the areas specified in proposed Rule 3110.18(h)(4) include data and information collection, and transmission.

[72] *See* note 23, *supra,* and accompanying text.

[73] *See* Exhibit 2c.

[74] In general, Rule 4111 (Restricted Firm Obligations) requires member firms that are identified as ''Restricted Firms'' to deposit cash or qualified securities in a segregated, restricted account; adhere to specified conditions or restrictions; or comply with a combination of such obligations. *See generally Regulatory Notice* 21–34 (September 2021) (announcing FINRA's adoption of rules to address firms with a significant history of misconduct).

[75] In general, Rule 3170 (Tape Recording of Registered Persons by Certain Firms) requires a member firm to establish, enforce and maintain special written procedures supervising the telemarketing activities of all of its registered persons, including the tape recording of conversations, if the firm has hired more than a specified percentage of registered persons from firms that meet FINRA Rule 3170's definition of ''disciplined firm.'' *See generally Regulatory Notice* 14–10 (March 2014) (announcing FINRA's adoption of consolidated rules governing supervision).

[76] CRD is the central licensing and registration system that FINRA operates for the benefit of FINRA, the SEC, other SROs, state securities regulators and broker-dealer firms. The information maintained in the CRD system is reported by registered broker-dealer firms, associated persons and regulatory authorities in response to questions on specified uniform registration forms. *See generally* Rule 8312 (FINRA BrokerCheck Disclosure).

Rule 3110(c) (proposed Rule 3110.18(f)(1)(F)).[77]

Rules 4111 and 3170 expressly address firms that pose higher risks, and for that reason, those firms would be ineligible to participate in the proposed pilot program. Further, FINRA believes that a member firm that is experiencing issues complying with its capital requirements or has been suspended from membership by FINRA is more likely to face significant operational challenges that may negatively impact the firm's inspection program. FINRA further believes that a firm that has been a FINRA member for less than 12 months is often still implementing its business plan and may not have sufficient experience to develop a sufficiently robust inspection program. With respect to a firm that is or has been found within the past three years by the SEC or FINRA to have violated Rule 3110(c), FINRA believes such firms have demonstrated challenges in developing or maintaining robust inspection programs. Collectively, FINRA believes that these proposed ineligibility criteria would appropriately limit the potential population of pilot program participants to those firms that may be better positioned to conduct remote inspections.

2. Firm Level Conditions (Proposed Rule 3110.18(f)(2))

To further address commenters' concerns pertaining to the adequacy and scope of the proposed controls of the pilot program, the Amended Rule Filing proposed enhancing the controls with respect to books and records, and surveillance and technology tools. In that filing, FINRA explained that those conditions were appropriate to establish reasonable baseline requirements for remote inspections. FINRA reaffirms this view through this proposed rule change by retaining, without substantive change, the conditions set forth in the Amended Rule Filing.

a. Recordkeeping System (Proposed Rule 3110.18(f)(2)(A))

As part of the requirements in proposed Rule 3110.18(b) to develop a reasonable risk-based approach to using remote inspections, and to conduct and document a risk assessment for each office or location, the member must, under proposed Rule 3110.18(f)(2)(A), have a recordkeeping system to make and keep current, and preserve records required to be made and kept current, and preserved under applicable securities rules and regulations, FINRA rules, and the member's own written supervisory procedures under Rule 3110. In addition, such records may not be physically or electronically maintained and preserved at the office or location subject to the remote inspection, and the member has prompt access to such records.

b. Surveillance and Technology Tools (Proposed Rule 3110.18(f)(2)(B))

In response to the Initial Rule Filing, NASAA expressed general concern about the lack of detail on the technology firms use to conduct effective remote surveillance.[78] Many commenters, however, had countered with the view that advances in technology have facilitated remote surveillance, including inspections, with some commenters describing the technology that they leverage to effectively surveil and inspect offices and locations remotely.[79] Examples included the use of laptops connected to the firm's network; smart phones for live video calls; video conferencing technology; electronic notifications of shipments to and from an office or location; and internet searches of social media and public records.[80] To address NASAA's general concerns about surveillance and technology, the Amended Rule Filing provided that as part of the requirement to develop a reasonable risk-based approach to using remote inspections, and the requirement to conduct and document a risk assessment for each office or location, the member must determine that its surveillance and technology tools are appropriate to supervise the types of risks presented by each such office or location, and set forth a description of the types of tools (*e.g.,* electronic surveillance of email, electronic trade blotters, secure network connections). However, in response to the Amended Rule Filing, NASAA, while acknowledging that supervisory requirements are principles-based, suggested that FINRA should revise the proposed provision to establish a mandatory technology floor for participants in the proposed pilot program comprising the tools commenters listed as examples of effective technologies.[81]

As noted above, FINRA is proposing to retain, without substantive change, the condition pertaining to surveillance and technology tools as set forth in the Amended Rule Filing, as consonant with the principle-based tenor of the rule. Under proposed Rule 3110.18(f)(2)(B), as part of the requirement to develop a reasonable risk-based approach to using remote inspections, and the requirement to conduct and document a risk assessment for each office or location, the member must determine that its surveillance and technology tools are appropriate to supervise the types of risks presented by each such remotely supervised office or location. The proposed provision would provide that these tools may include but are not limited to: (1) firm-wide tools such as electronic recordkeeping systems, electronic surveillance of email and correspondence, electronic trade blotters, regular activity-based sampling reviews, and tools for visual inspections; (2) tools specifically applied to such office or location based on the activities of associated persons, products offered, restrictions on the activity of the office or location (including holding out to customers and handling of customer funds or securities); and (3) system security tools such as secure network connections and effective cybersecurity protocols. FINRA believes that proposed Rule 3110.18(f)(2)(B) appropriately conveys a reasonable baseline requirement for remote inspections. FINRA maintains that it would not be appropriate to identify specific technology-based tools because of the evolving development and ongoing advances in technologies. Moreover, FINRA notes that proposed Rule 3110.18(c) would require a firm to adopt reasonably designed written supervisory procedures that must include, among other things, a description of the methodology, including the technology, that a firm may use to conduct remote inspections.

G. Location Level Requirements (Proposed Rule 3110.18(g))

In the Initial Rule Filing, FINRA had proposed several criteria that if met would render a member's office or location ineligible for remote inspection. The categories of ineligibility were events or activities of an associated person of the member firm that FINRA had explained were more likely to raise investor protection concerns based on the individual's record of specified regulatory or disciplinary events. Some commenters to the Initial Rule Filing expressed general concerns relating to the discretion provided to firms to make risk assessments as to whether an office or location could undergo a remote

[77] FINRA notes that the term ''found'' as used in this proposed criterion would carry the same meaning as Rule 4530.03 (Meaning of ''Found'').

[78] *See* Exhibit 2c.

[79] *See* Exhibit 2c.

[80] *See* Exhibit 2c.

[81] *See* NASAA III.

inspection.[82] In response to those concerns, FINRA had expanded the list of events or activities that would deem a specific office or location of a member ineligible from participating in the pilot program. The proposed rule change would retain the criteria set forth in the Amended Rule Filing, but with one clarifying adjustment pertaining to an associated person who is a part of a member's trading desk.

1. Location Level Ineligibility Criteria (Proposed Rule 3110.18(g)(1))

Under proposed Rule 3110.18(g)(1), a member firm's office or location would be ineligible for a remote inspection if at any time during the period of the proposed pilot program, an associated person at such office or location is or becomes: (1) subject to a mandatory heightened supervisory plan under the rules of the SEC, FINRA or state regulatory agency (proposed Rule 3110.18(g)(1)(A)); (2) statutorily disqualified, unless such disqualified person has been approved (or is otherwise permitted pursuant to FINRA rules and the federal securities laws) to associate with a member and is not subject to a mandatory heightened supervisory plan under proposed Rule 3110.18(g)(1)(A) or otherwise as a condition to approval or permission for such association (proposed Rule 3110.18(g)(1)(B)); (3) subject to Rule 1017(a)(7) [83] as a result of one or more associated persons at such location (proposed Rule 3110.18(g)(1)(C)); (4) one or more associated persons at such location has an event in the prior three years that required a ''yes'' response to any item in Questions 14A(1)(a) and 2(a), 14B(1)(a) and 2(a), 14C, 14D and 14E on Form U4 [84] (proposed Rule 3110.18(g)(1)(D)); (5) one or more associated persons at such office or location is or becomes subject to a disciplinary action taken by the member that is or was reportable under Rule 4530(a)(2) (proposed Rule 3110.18(g)(1)(E)); [85] or (6) the office or location handles customer funds or securities (proposed Rule 3110.18(g)(1)(G)).[86] These proposed criteria remain substantively unchanged from the Amended Rule Filing.

In the Amended Rule Filing, FINRA had also proposed a criterion that would make a member firm's office or location ineligible for a remote inspection if one or more associated persons at such office or location was ''a part of the member's trading desk (*e.g.,* engaging in market making activities or having authority to enter proprietary trades on behalf of the member or as agent for other parties)[.]'' [87] In response to the Amended Rule Filing, one commenter conveyed that the proposed criterion was overly broad, and overstated the risks presented by trade desk personnel.[88] FINRA is proposing to adjust this criterion. As adjusted, under proposed Rule 3110.18(g)(1)(F), a member firm's office or location would be ineligible for a remote inspection if at any time during the period of the proposed pilot program, an associated person at such office or location is engaged in proprietary trading, including the incidental crossing of customer orders, or the direct supervision of such activities.[89]

2. Location Level Conditions (Proposed Rule 3110.18(g)(2)

To further address the concerns about the adequacy and scope of the proposed pilot program's controls, the Amended Rule Filing had proposed enhancing the controls with respect to electronic communications, correspondence and books and records. FINRA is proposing to retain, without substantive change, the conditions set forth in the Amended Rule Filing. Under proposed Rule 3110.18(g)(2), as part of the requirement to develop a reasonable risk-based approach to using remote inspections, and the requirement to conduct and document a risk assessment for each office or location, the member must satisfy the following conditions: (1) electronic communications (*e.g.,* email) are made through the member's electronic system; (2) the associated person's correspondence and communications with the public are subject to the firm's supervision in accordance with Rule 3110; and (3) no books or records of the member required to be made and kept current, and preserved under applicable securities laws and regulations, FINRA rules, and the member's own written supervisory procedures under Rule 3110 are physically or electronically maintained and preserved at such office or location. FINRA believes that proposed Rule 3110.18(g)(2) appropriately conveys a reasonable set of conditions related to communications of associated persons and the creation and preservation of books and records at a specific office or location.

FINRA believes that the proposed location level ineligibility criteria are indicia of increased risk to investors at some office or locations, such that they should not be eligible for remote inspections in accordance with the proposed pilot program.

A member firm, or an office or location subject to one of the categorical restrictions would not be eligible for remote inspections, even if the firm's risk assessment concludes that a remote inspection would be appropriate. A member firm that meets one of these ineligibility criteria would not be able to participate in the proposed pilot program. If a member firm is eligible to participate in the proposed pilot program, but one of its offices or locations meets one of the location level ineligibility criteria, the member would be required to conduct an on-site inspection of that office or location on the required cycle. FINRA believes the proposed list of ineligibility categories is appropriately derived from existing rule-based criteria that are part of processes to identify firms that may pose greater concern (*e.g.,* Rules 4111 and 3170) or associated persons that may pose greater concerns due to the specified activities and nature of disclosures of regulatory or disciplinary events on the uniform registration forms. FINRA believes that these objective categorical restrictions will provide safeguards that will help ensure that firms maintain effective supervisory procedures during the pilot period.

[82] *See* Exhibits 2b and 2c.

[83] In general, Rule 1017(a)(7) requires a member firm to file a CMA when a natural person seeking to become an owner, control person, principal or registered person of the member firm has, in the prior five years, one or more defined ''final criminal matters'' or two or more ''specified risk events'' unless the member firm has submitted a written request to FINRA seeking a materiality consultation for the contemplated activity. Rule 1017(a)(7) applies whether the person is seeking to become an owner, control person, principal or registered person at the person's current member firm or at a new member firm. *See generally Regulatory Notice* 21–09 (March 2021) (announcing FINRA's adoption of rules to address brokers with a significant history of misconduct).

[84] Form U4's Questions 14A(1)(a) and 2(a), 14B(1)(a) and 2(a) elicit reporting of criminal convictions, and Questions 14C, 14D, and 14E pertain to regulatory action disclosures.

[85] Paragraph (a)(2) under Rule 4530 (Reporting Requirements) requires a member firm to report when an associated person of the member is the subject of any disciplinary action taken by the member involving suspension, termination, the withholding of compensation or of any other remuneration in excess of $2,500, the imposition of fines in excess of $2,500 or is otherwise disciplined in any manner that would have a significant limitation on the individual's activities on a temporary or permanent basis.

[86] In accordance with existing guidance, the meaning and interpretation of the term ''handled'' that currently appears in Rule 3110(f)(2)(A)(ii) would remain consistent in the proposed pilot program. *See also Notice to Members* 06–12 (March 2006).

[87] *See* Exhibit 2b.

[88] *See* Letter from Sandip Khosla, General Counsel, Two Sigma Securities, LLC, to Vanessa A. Countryman, Secretary, SEC, dated January 12, 2023, *https://www.sec.gov/comments/sr-finra-2022-021/srfinra2022021-20154757-323056.pdf.*

[89] FINRA notes that this proposed criterion would encompass trading activity in any security, whether traded on a national securities exchange or over-the-counter.

H. Data and Information Collection Requirement (Proposed Rule 3110.18(h))

1. Data and Information (Proposed Rule 3118.18(h)(1))

As noted above, Rule 3110.17 was adopted in the midst of the pandemic and operationalized in an environment in which many offices and locations were closed to the public. FINRA believes that the formalized, uniform collection of data is critical to allow FINRA to meaningfully assess the effectiveness of remote inspections to help shape potential permanent amendments to Rule 3110(c) that would optimize an inspection program in the evolving workplace environment. FINRA believes having a pilot program for remote inspections with appropriate conditions, limitations and documentation requirements in an environment that is settling into a hybrid workplace model would provide a clearer picture of the strengths and weaknesses of remote inspections, without compromising investor protection. Proposed Rule 3110.18(h), the terms of which are similar to those set forth in the 2022 Remote Inspections Pilot Program Rule Filing, would impose upon firms a data and information collection requirement as a condition for participating in the pilot program. On a quarterly frequency, participating firms would be required to collect and produce to FINRA, in a manner and format determined by FINRA, data consisting of separate counts for OSJs, supervisory branch offices, non-supervisory branch offices, and non-branch locations, consistent with paragraphs (c)(1)(A), (B) and (C) under Rule 3110, for several categories. These categories include: (1) the total number of inspections—on-site and remote—completed during each calendar quarter; [90] (2) the number of those office or locations in each calendar quarter that were subject to an on-site inspection because of a ''finding,'' (as described under proposed Rule 3110.18(h)(1) as a discovery made during an inspection that led to a remedial action or was listed on the member's inspection report); [91] (3) the number of locations for which a remote inspection was conducted in the calendar quarter that identified a finding, the number of findings, and a list of the most significant findings; [92] and (4) the number of locations for which a on-site inspection was conducted in the calendar quarter that identified a finding, the number of findings, a list of the most significant findings.[93] In addition, firms would be required to provide FINRA their written supervisory procedures for remote inspections that account for: (1) escalating significant findings; new hires; supervising brokers with a significant history of misconduct; and outside business activities and ''doing business as'' (or DBA) designations.[94] Firms would be required to provide FINRA with a copy of these written supervisory procedures alongside the first delivery of the data points described above, and any subsequent amendments to such procedures for remote inspections.[95]

In response to the Amended Rule Filing, NASAA suggested that firms should be required to provide FINRA with '' 'all findings' made during remote inspections, not only the ones the firm subjectively deems 'most significant'[,]'' contending that the discretion given to firms to make this determination would undermine the data and hinder FINRA's ability to assess trends and developments.[96] FINRA believes that to require firms to provide ''all findings'' rather than the ''significant findings'' would yield an overly broad data set where it would be challenging to discern key trends in a meaningful way. Moreover, while Rule 3110(c)(2) specifies the areas that a firm must address in an inspection report, if applicable to the office or location being inspected, the rule does not impose any other content requirements of an inspection report. FINRA believes that pilot program participants, which FINRA would expect to reflect a variety of attributes (*e.g.,* size, business model, organizational structure), should have the agency to assess their significant findings and report them to FINRA in the manner specified under the proposed rule. FINRA maintains that this approach would enhance FINRA's ability to review a discrete set of data that would focus on key areas of concern to firms, which in turn, would help FINRA assess the effectiveness of remote inspections.

2. Additional Data and Information for Pilot Year 1, if Less Than Full Calendar Year (Proposed Rule 3110.18(h)(2)) and for Calendar Year 2019 (Proposed Rule 3110.18(h)(3))

Consistent with the 2022 Remote Inspections Pilot Program Rule Filing, proposed Rule 3110.18(h)(2) would address the additional data and information requirements for Pilot Year 1 (as defined under proposed Rule 3110.18(l)), if such year covers a period that is less that a full calendar year. In such case, a member that elects to participate in the proposed pilot program would be required to collect the following data and information and provide such data and information to FINRA (in a manner and format FINRA determines) no later than December 31 of such first Pilot Year. For items (1) through (3) below, a member would be required to provide separate counts for OSJs, supervisory branch offices, non-supervisory branch offices, and non-branch locations consistent with paragraphs (c)(1)(A), (B) and (C) under Rule 3110: (1) the number of locations with an inspection completed during the full calendar year of the first Pilot Year; (2) the number of locations in item (1) that were inspected remotely during the full calendar year of the first Pilot Year; and (3) the number of locations in item (1) that were inspected on-site during the full calendar year of the first Pilot Year. This additional data and information would provide FINRA the ability to capture, in the aggregate, complete inspection counts—total number of Rule 3110(c)(1) inspections (remote and on-site)—for the entire calendar year in addition to the more detailed data and information requirements under proposed Rule 3110.18(h)(1).

In response to the Amended Rule Filing, NASAA recommended that firms be required to provide FINRA with the information specified in the proposed provision relating to data and information collection to cover the most recent 12-month period during which the firm conducted in-person inspections under Rule 3110(c). FINRA agrees with this approach. Thus, in addition to the data and information requirement under paragraphs (h)(1) and (h)(2) to proposed Rule 3110.18, proposed Rule 3110.18(h)(3) would require a pilot program participant to collect and provide to FINRA calendar year 2019 data and information no later than December 31 of Pilot Year 1 (as

[90] *See* proposed Rule 3110.18(h)(1)(A), (B) and (C).

[91] *See* proposed Rule 3110.18(h)(1)(D).

[92] *See* proposed Rule 3110.18(h)(1)(E). A ''significant finding'' would be one that should prompt the firm to take further action that could include escalation to the appropriate channels at the firm for further review, the result of which may be enhanced monitoring or surveillance of a particular event or activity through more frequent inspections (remotely or on-site), on an announced or unannounced basis, of the office or location, or other targeted reviews of the root cause of the finding. Examples of some findings that may prompt escalation or further internal review by the appropriate firm personnel include, among other things, the use of unapproved communication mediums, customer complaints, or undisclosed outside business activities or private securities transactions.

[93] *See* proposed Rule 3110.18(h)(1)(F).

[94] *See* proposed Rule 3110.18(h)(1)(G)(i) through (iv).

[95] *See* proposed Rule 3110.18(h)(1)(G).

[96] *See* NASAA III.

defined under proposed Rule 3110.18(l)). For items (1) and (2) below, a member would be required to provide separate counts for OSJs, supervisory branch offices, non-supervisory branch offices, and non-branch locations consistent with paragraphs (c)(1)(A), (B) and (C) under Rule 3110: (1) the number of locations with an inspection completed during calendar year 2019; and (2) the number of locations in item (1) where findings were identified, the number of those findings and a list of the most significant findings. This additional data and information covering calendar year 2019, when firms conducted their inspections solely on-site, would provide FINRA with some baseline data and information about on-site inspections immediately preceding the pandemic.

3. Written Policies and Procedures (Proposed Rule 3110.18(h)(4))

Consistent with the 2022 Remote Inspections Pilot Program Rule Filing, proposed Rule 3110.18(h)(4) would remind firms of the general requirement to establish, maintain and enforce written policies and procedures that are reasonably designed to comply with the data and information collection, and transmission requirements of the proposed pilot program.

I. Election To Participate in Remote Inspections Pilot Program (Proposed Rule 3110.18(i))

Consistent with the 2022 Remote Inspections Pilot Program Rule Filing, proposed Rule 3110.18(i) would set forth the manner in which a firm would notify FINRA of the firm's election to participate in the proposed pilot program and to withdraw from it. The proposed rule would provide that FINRA may, in exceptional cases and where good cause is shown, waive the applicable timeframes described below for the required opt-in or opt-out notices.

Proposed Rule 3110.18(i) would require a firm, at least five calendar days before the beginning of such Pilot Year, to provide FINRA an ''opt-in notice'' in the manner and format determined by FINRA. By providing such opt-in notice to FINRA, the firm agrees to participate in the proposed pilot program for the duration of such Pilot Year and to comply with the requirements of Rule 3110.18.[97] A firm that provides the opt-in notice for a Pilot Year would be automatically deemed to have elected and agreed to participate in the Remote Inspections Pilot Program for subsequent Pilot Years (*i.e.,* Pilot Year 2, Pilot Year 3, and Pilot Year 4, if applicable) until the pilot program expires. Further, proposed Rule 3110.18(i) would describe the notice requirement for a firm to withdraw from the proposed pilot program. A firm would be required to provide FINRA with an ''opt-out notice'' at least five calendar days before the end of the then current Pilot Year.

By way of example, a firm that provides FINRA an opt-in notice on June 26 to join Pilot Year 1 that begins on July 1 would be automatically deemed to continue participating in Pilot Year 2 unless the firm provides FINRA the required opt-out notice no later than December 26 of Pilot Year 1. To continue with this example, a firm that was automatically deemed to participate in Pilot Year 2 and determines in mid-Pilot Year 2 that it does not want to automatically continue into Pilot Year 3 could elect to withdraw from Pilot Year 3 if it provides FINRA an opt-out notice at least five calendar days before the end of Pilot Year 2. However, because Pilot Year 2 is already underway, the firm would be required to complete Pilot Year 2 in accordance with proposed Rule 3110.18.

FINRA believes that this proposed operational aspect of the program would not only establish a cohesive process in which firms and FINRA may manage program participation but also lend some continuity in data and information collection that would support FINRA's assessment and evaluation of the experiences of pilot program participants.

J. Failure To Satisfy Conditions (Proposed Rule 3110.18(j))

Consistent with 2022 Remote Inspections Pilot Program Rule Filing, proposed Rule 3110.18(j) would address a situation in which a firm fails to satisfy terms of the proposed pilot program. The proposed paragraph would provide that a firm that fails to satisfy the conditions of Rule 3110.18, including the requirement to timely collect and submit the data and information to FINRA as set forth in proposed Rule 3110.18(h), would be ineligible to participate in the pilot program and must conduct on-site inspections of each office and location on the required cycle in accordance with Rule 3110(c).

K. Determination of Ineligibility (Proposed Rule 3110.18(k))

To address commenters' concerns pertaining to monitoring for compliance with the proposed pilot program, the Amended Rule Filing had proposed a provision to allow FINRA to make a determination in the public interest and for the protection of investors that a member is no longer eligible to participate in the proposed pilot program if the member fails to comply with the requirements of the proposed pilot program. The proposal further provided that FINRA would provide written notice to the member of such determination and such member would no longer be eligible to participate in the proposed pilot program and would be required to conduct on-site inspections of required offices and locations in accordance with Rule 3110(c). In the Amended Rule Filing, FINRA had explained that this authority would both align with FINRA's examination and risk monitoring programs for member firms and registered persons and allow FINRA to more effectively assess higher risk. In response to the Amended Rule Filing, NASAA stated that the proposed provision should be expanded broadly to provide FINRA the ability to make such a determination if it finds that a firm ''fail[ed] to comply with the requirements of applicable laws, rules, and regulations related to supervision of associated persons[,]'' stating that this broad scope would provide the appropriate level of flexibility ''to protect investors from misconduct and lax supervisory practices.'' [98]

FINRA believes that the proposed provision is sufficiently broad in scope for purposes of the proposed pilot program. FINRA reiterates that the purpose of the proposed three-year pilot program, which is voluntary, is to study the effectiveness of remote inspections in accordance with Rule 3110(c)(1) as part of a reasonably designed supervisory system. Consistent with the Amended Rule Filing, FINRA is proposing to retain, without substantive change, proposed Rule 3110.18(k) under the described terms.

L. Definitions (Proposed Rule 3110.18(l))

Consistent with 2022 Remote Inspections Pilot Program Rule Filing, proposed Rule 3110.18(l) would set forth the meanings underlying ''Pilot Year'' to explain the duration of the proposed pilot program. Under proposed Rule 3110.18(l), a ''Pilot Year'' would mean the following: (1) Pilot Year 1 would be the period beginning on the effective date of the proposed pilot program and ending on December 31 of the same year; (2) Pilot Year 2 would mean the calendar year period

[97] A firm that participates in a Pilot Year would be committed to complying with the terms of proposed Rule 3110.18 for that Pilot Year.

[98] *See* NASAA III.

following Pilot Year 1, beginning on January 1 and ending on December 31; and (3) Pilot Year 3 would mean the calendar year period following Pilot Year 2, beginning on January 1 and ending on December 31. Finally, if applicable, where Pilot Year 1 covers a period that is less than a full calendar year, then Pilot Year 4 would mean the period following Pilot Year 3, beginning on January 1 and ending on a date that is three years after the effective date.

M. Sunset of Rule 3110.17 (Proposed Rule 3110.18(m))

As noted above, Rule 3110.17 is set to expire on December 31, 2023.[99] FINRA will submit a separate rule filing if, during the pendency of the SEC's determination of whether to approve or disapprove this proposed rule change, FINRA seeks to extend the duration of Rule 3110.17 beyond the current term. Proposed Rule 3110.18 would expressly account for the possibility of overlapping provisions if the proposed pilot program becomes effective while Rule 3110.17 is also in effect. Proposed paragraph (m), which is nearly identical to the provision set forth in the 2022 Remote Inspections Pilot Program Rule Filing, would provide that if Rule 3110.17 has not already expired by its own terms (on December 31, 2023 or as the case may be, on an extended date), it would automatically sunset on the effective date of proposed Rule 3110.18.

Consistent with the principles set forth in prior guidance, FINRA expects members to establish reasonably designed inspection programs. The proposed pilot program for remote inspections does not alter the core obligation of a member firm to establish and maintain a system to supervise the activities of each associated person that is reasonably designed to achieve compliance with applicable securities laws and regulations, and with applicable FINRA rules.[100] As part of the inspection planning process, FINRA expects members to continue with their ongoing supervision, including risk analysis of the activities and functions occurring at all offices or locations. While the option to conduct remote inspections in accordance with proposed Rule 3110.18 provides greater choice in how to effectively supervise some offices or locations, a member must continue to consider the factors described in Rule 3110.12, along with the activities taking place there. This analysis may require the member to conduct a physical, on-site inspection of an office or location. Where there are indications of problems or red flags at any office or location, FINRA expects members to investigate them as they would for any other office or location subject to Rule 3110(c), which may include an unannounced, on-site inspection of the office or location. FINRA is committed to diligently monitoring the impacts of remote inspections on a firms' overall supervisory systems and reviewing the data over the life of the proposed pilot program to assess how firms apply the flexibility provided by the pilot program while maintaining an effective supervisory program.

(V) FINRA's Monitoring and Compliance With Proposed Rule 3110.18

A. Overview of FINRA's Data-Driven, Risk-Based Regulatory Framework

FINRA's data-driven regulatory programs are integrated among various FINRA departments, and the data and information FINRA currently collects from its member firms helps provide FINRA with a holistic view of firm risk management. FINRA's Examinations and Risk Monitoring Program, which is a part of FINRA's Member Supervision Department, is a critical component of FINRA's regulatory operations, and one of the many ways in which FINRA oversees the activities of member firms and its associated persons with the goal of detecting, deterring, and addressing activities that may cause investor harm or adversely impact market integrity.[101]

FINRA's Risk Monitoring is organized by the primary business model of member firms [102] and serves as a point of contact for FINRA member firms on a range of topics that may include, among others, financial and business conduct requirements and firm submissions (*e.g.,* FOCUS filings, Rule 4530 filings, other reporting requirements), published guidance, and new FINRA rules. This relationship allows Risk Monitoring to cultivate a thorough understanding of the business activities and operations of each firm they monitor. This knowledge, along with the data FINRA collects serves FINRA by providing ongoing awareness and analysis of member firm activities, including business lines, operations, products, and controls. This proactive monitoring, with Risk Monitoring as the point of contact for member firms, enables FINRA to implement a risk-based regulatory program that focuses resources and regulator responses on concerning risks. This assessment methodology plays a role in many aspects of FINRA's regulatory programs, including FINRA's Examinations in the preparation of firm examinations. The type of examination may depend upon the firm profile that is created by a number of attributes, including among others, business model, size, the products offered, and disciplinary history of the firm and its registered persons. The areas of review in an examination may also be influenced by the adoption of a new FINRA rule and any accompanying guidance or interpretation.

As described above, the terms of proposed Rule 3110.18 include several rule-based or reportable criteria, or information that is electronically captured that FINRA can readily monitor through Risk Monitoring and Examinations. These criteria relate to Rules 1017(a)(7), 3170, 4111, and 9557, the suspension of FINRA membership, or a FINRA membership that has been effective for less than 12 months, among other criteria set forth in the proposed supplementary material. Activity-based criteria such as market-making and trading activities, and the handling of customer funds or securities can also be surveilled through firm submissions, and other data sources and internal systems.

FINRA recognizes that firms are using increasingly sophisticated technology and analytic techniques to synthesize data in ways not previously possible to identify indicators of possible rule violations and associated person misbehavior. To keep pace with the technological environment, FINRA's regulatory programs are also data driven, and FINRA uses its data and information (*e.g.,* Forms U4 and U5, regulatory tips, transaction reporting, and other internal and externally-acquired data), gathered, in part, through advanced analytics, to better identify and address risks that can be marked not only to a member firm, but also to a registered person. The picture that the data and information reveal may initiate an examination separate from the firm's routine examination or, through Risk Monitoring, further inquiry with the firm.

In the context of the proposed remote inspections pilot program, FINRA would use the risk markers identified using its analytic techniques to inform FINRA's Risk Monitoring and Examinations' assessment of whether FINRA should examine an office or location, and in turn, examine a firm's

[99] *See* note 49, *supra.*

[100] *See* Rule 3110(a).

[101] *See generally* FINRA Examination and Risk Monitoring Programs, *https://www.finra.org/rules-guidance/key-topics/finra-examination-risk-monitoring-programs.*

[102] The five business models are Capital Markets, Carrying and Clearing, Retail, Trading and Execution, and Diversified.

reasonableness determination to conducting remote inspections rather than an on-site inspection for that office or location. Some risk markers may include, among others, CRD disclosures, the number and types of OBAs of registered persons at a specific office or location, the existence and type of investor harm events that have occurred for individuals at an office or location, the historical results and frequency of FINRA's examination of an office or location, and the percentage of senior investors in the county in which the office or location reside, among others. Relatedly, FINRA is able to leverage this data and information when assessing the reasonableness of a firm's supervision, including their determination to inspect an office or location through a remote process, rather than an on-site process. For example, if the data and information identify an office or location with a concentration of OBAs or investor harm events and review of the firm's remote inspection program does not appear to account for OBAs or sales risks, there may be an overall weakness in the firm's inspection program, irrespective of whether the inspection is done remotely or on-site. As with any new process or rule, FINRA anticipates undertaking a careful review of firm compliance with proposed Rule 3110.18. FINRA is engaged in ongoing efforts to enhance its regulatory programs, with a sustained focus on effectively identifying and addressing areas of risk by firm and registered person. Several of FINRA's key functions provide early warning indicators of potential problems, which FINRA leverages in its regulatory oversight of firms. In the context of reviewing a firm's remote inspections program, one indicator in this evaluation may be whether the firm is identifying risk indicators that are similar to those that FINRA is detecting.

B. FINRA's Use of the Data and Information Collected in Accordance With Proposed Rule 3110.18(h)

In general, proposed Rule 3110.18(h) would require a pilot program participant to provide FINRA with specified data and information (in an aggregated form), including written supervisory procedures for remote inspections, that FINRA believes would complement FINRA's existing regulatory intelligence as part of the larger effort to gauge the effectiveness of remote inspections as part of a reasonably designed supervisory system. For purposes of its regulatory programs and if appropriate, FINRA may, after some experience with the data and information collected, extrapolate trends and practices in this area that could result in future rulemaking or updated guidance about inspections generally.

If the Commission approves the proposed rule change, FINRA will announce the effective date of the proposed rule change in a *Regulatory Notice.*

2. Statutory Basis

FINRA believes that the proposed rule change is consistent with the provisions of Section 15A(b)(6) of the Act,[103] which requires, among other things, that FINRA rules must be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest.

The terms of the proposed voluntary, three-year remote inspection pilot program, while based largely on the terms of Rule 3110.17, which has been operational since the latter part of 2020 and is set to automatically sunset on December 31, 2023,[104] would include important safeguards that would require individual risk assessments of each office, supplemental written supervisory procedures related to remote inspections, documentation requirements and obligations to share data with FINRA to allow for assessment of the pilot program. The proposed rule change is intended to provide firms that are operating in a hybrid work environment the option to conduct remote inspections of their offices and locations, subject to specified conditions, while maintaining effective supervision. FINRA believes that the proposed pilot program would provide FINRA the appropriate amount of time and population sample to better evaluate the use of remote inspections in the unfolding office work environment. FINRA believes the proposed pilot program, with the proposed safeguards and controls, will provide firms more flexibility to adapt to changing work conditions. The proposed pilot program would aid in FINRA's assessment of the effectiveness of a flexible remote inspection option and its utility in an environment that is increasingly moving to hybrid workplace models, without compromising investor protection.

B. Self-Regulatory Organization's Statement on Burden on Competition

FINRA does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Economic Impact Assessment

FINRA has undertaken an economic impact assessment, as set forth below, to analyze the regulatory need for the proposed rule change, its potential economic impacts, including anticipated costs, benefits, and distributional and competitive effects, relative to the current baseline, and the alternatives FINRA considered in assessing how best to meet FINRA's regulatory objectives.

1. Regulatory Need

The proposed pilot program would serve two purposes. First, it would mitigate potential disruptions to the hybrid work arrangements that have developed during the pandemic. In particular, for participating members, the proposed pilot program would limit the increase in aggregate inspection costs, and the resulting incentive to reduce the number and type of work locations, that would occur when temporary relief provided during the pandemic expires.[105] The proposed pilot program would not eliminate the need for such adjustments, but it would allow member firms to focus their on-site inspections on riskier locations.

The proposed pilot program would also allow FINRA to assess the benefits and costs of allowing some element of remote inspection of branch offices and non-branch locations, under specified conditions, in the post-pandemic world. FINRA would obtain information from participating members on certain elements of the risk-based approach that they implement, the type and frequency of inspections, and certain outcomes conditional on the type and frequency of inspections, as well as the type of office or location inspected.

2. Economic Baseline

The economic baseline for the proposed rule change includes both current and foreseeable workforce arrangements and business practices, including those that were first developed during the pandemic and have been modified since. In particular,

[103] 15 U.S.C. 78*o*–3(b)(6).

[104] *See* note 49, *supra.*

[105] According to the April Survey of Working Arrangements and Attitudes (SWAA), post-COVID, many employers are planning to allow employees to work from home approximately 2.2 days per week, on average. *See* Jose Maria Barrero, Nicholas Bloom, Shelby Buckman & Steven J. Davis, SWAA February 2023 (February 12, 2023), *https://wfhresearch.com/wp-content/uploads/2023/02/WFHResearch_updates_February2023.pdf.* The SWAA is a monthly survey with respondents that are working-age persons in the United States that had earnings of at least $10,000 in 2019. Further details about this survey can be found in *https://wfhresearch.com.*

the economic baseline includes the innovations, and investments in communication and surveillance technology, that have supported and continue to support supervision in the remote work environment.[106] These innovations and investments were developed during the temporary relief allowing remote inspections in Rule 3110.17, and the temporary suspension of the requirement to submit branch office applications on Form BR for new office locations provided in *Notice* 20–08 (''Form BR Relief''). The baseline includes the scheduled expiration of Rule 3110.17 on the effective date of the proposed Rule 3110.18; and, in order to provide a full accounting of the likely effects of the proposed rule change, the analysis also assumes that, going forward, the temporary suspension of the above requirement is no longer in effect. FINRA expects that numerous additional office locations would then need to be registered, greatly expanding the number of inspections, and all inspections would then need to be conducted on-site.

As of December 31, 2022, FINRA's membership included 3,381 firms with 150,495 registered branch offices.[107] Of these branch offices, 18,564 (12%) are OSJs subject to an annual inspection requirement. The remaining 131,931 branch locations are non-OSJ branch offices subject to an inspection requirement at least annually or every three years. In addition, according to FINRA estimates, there are approximately 59,830 non-branch locations, of which 41,078 are private residences.[108] A non-branch location must be inspected on a periodic schedule, presumed to be at least every three years. These data may be affected by the temporary relief from certain requirements to update Form U4 and to submit Form BR provided in *Notice* 20–08. FINRA estimates that member firms conduct at least 82,500 inspections per year.

3. Economic Impacts

When the Form BR Relief ends,[109] FINRA expects that numerous additional office locations will need to be registered, greatly expanding the number of inspections, and all inspections would then need to be conducted on site. The economic impacts of these changes would be mitigated by the proposed rule change for firms that choose to participate in the pilot program.[110]

The requirements in the Proposed Rule 3110.18 would exclude some member firms entirely or partially by excluding some of their offices or locations from participating in the Remote Inspections Pilot Program. The proposed additional requirements reference events or activities of a member firm or its associated person where remote inspection may result in an increased risk to investors.

Using CRD data as of early November 2022, FINRA estimates that under the firm level exclusions from the Initial Proposal, at least approximately 128 firms with 474 registered branches would not qualify for the proposed pilot program. Under the office or location level exclusions, an additional 868 registered branch offices belonging to 278 other firms would be excluded. Thus, a total of approximately 1,342 (= 474 + 868) registered branch offices would be excluded from the proposed pilot program.[111] Based on these figures, FINRA anticipates that at most approximately 2,884 small firms, 183 mid-size firms and 166 large firms could potentially participate in the proposed pilot program and that most large firms would have some branch offices excluded.

Participants in the pilot program would be expected to take a risk-based approach to conducting remote inspections. A firm that does not conduct a remote inspection for an office or location must conduct an on-site inspection of that office or location on the required cycle and remains subject to the other requirements of Rule 3110(c). A firm that chooses to participate in the pilot program (assuming that it is not otherwise ineligible from participating) would also be required to provide FINRA with certain data and other information about the risk-based approach that they implement, the type and frequency of inspections, and certain outcomes conditional on the type and frequency of inspections.

Anticipated Benefits

The benefit to eligible firms of choosing to participate in the pilot program, in an improved health environment, would result from limiting the increase in travel costs and lost productivity due to time spent during travel and in the on-site inspection. On-site visits have material costs from travel expenses and additional staff time. A system of risk-based on-site and remote inspections will allow firms to more efficiently deploy compliance resources and to use an on-site component only when appropriate.

Firms as well as investors may benefit if remote inspections provide new flexibility in the design of inspection teams. For example, remote inspections may facilitate the development of specialized inspection staff that are deployed over more inspections, for shorter periods of time, in a targeted way. This option may especially benefit diversified member firms with a variety of product offerings. Remote inspections can also facilitate the use of inspections

[106] The pandemic propelled increased reliance on technology solutions in the remote work environment. A McKinsey survey in late 2020 found that, overall, firms had accelerated their adoption of technology, with large accelerations in the implementation of changes to increase remote working and collaboration, as well the use of advanced technologies in operations. *See* McKinsey & Company, How COVID–19 has pushed companies over the technology tipping point—and transformed business forever (October 5, 2020), *https://mck.co/3nlK8b2*.

[107] This count excludes firms with membership pending approval, and withdrawn or terminated from membership.

[108] Non-branch locations do not have to be registered with FINRA. The estimates for non-branch locations, including those that are also private residences, are obtained by reviewing Form U4. There may be some double counting of non-branch locations if members record the address differently on more than one Form U4. For the estimate of non-branch locations, FINRA counted, by firm, unique addresses based on the first seven characters of the Form U4 ''Street 1'' field, city and state. Addresses that matched the address of the main office or of an existing registered branch were excluded.

[109] When appropriate, FINRA will announce a termination date for the regulatory relief set forth in *Notice* 20–08 that will provide members with time to make necessary operational adjustments. *See generally* FINRA's Key Topic: COVID–19/Coronavirus (referencing, among other things, Frequency Asked Questions Related to Regulatory Relief Due to the Coronavirus Pandemic), *https://www.finra.org/rules-guidance/key-topics/covid-19/faq*.

[110] Separately, FINRA filed a proposed rule change to establish a Residential Supervisory Location (''RSL''), a new non-branch location, that would, relative to the baseline, reduce the number of inspections that members with RSLs would need to conduct in a year. *See* Securities Exchange Act Release No. 97237 (March 31, 2023), 88 FR 20568 (April 6, 2023) (Notice of Filing of File No. SR–FINRA–2023–006) (''2023 RSL Rule Filing''). For member firms with locations that would meet the proposed definition of an RSL, the aggregate cost savings from choosing to participate in the proposed pilot program would be lower if the RSL proposal were in place because the cost savings from remote inspections would accrue over fewer inspections. The qualitative impacts of the proposed pilot program, however, are similar whether the proposed definition of an RSL is adopted or not.

[111] Approximately 1,766 firms have a single registered branch office and ten or fewer registered representatives or no registered branch offices. FINRA anticipates that such firms would be less likely to elect to participate in the proposed pilot program. The reason is that it is less likely that these firms would have enough staff working from home such that the benefit of conducting remote inspections relative to the cost of sending data to FINRA and meeting the other proposed pilot program requirements would make participation in the proposed pilot program more practical than conducting physical inspections or eliminating remote work.

that target a particular area of focus in a member firm's business across all branches of the member firm.

The proposed rule change may also support the competitiveness of the broker-dealer industry for individuals who seek professional positions in compliance.[112] The expectation of workplace flexibility and remote work by such individuals may lead them away from the broker-dealer industry if other segments of financial services or professional occupations offer more flexible workforce arrangements, with regulatory frameworks that offer more discretion in how the supervision is conducted.[113] Even prior to the pandemic, the scope of on-site inspections had been much reduced due to technological surveillance solutions and centralization of books and records. The proposed pilot would support continued adoption and innovation in technological solutions and reductions in the cost of these solutions.[114]

Participants in the proposed pilot program would provide FINRA with quarterly data on the frequency and type of inspections (on-site or remote), counts of findings from inspections subdivided by category of office or location, qualitative information about these findings, and certain information about the written supervisory procedures for remote inspections they are required to have.[115] Depending on the number and types of firms that participate in the proposed pilot program, this data may allow FINRA to identify differences in risks between remote versus on-site inspection, both conditional on the observable characteristics and policies of firms and overall, the extent of variation in these risks across firms and firm characteristics, and factors associated with very high or low risks.[116] The proposed pilot program has the potential to yield a more thorough collection of sensitive information in a structured manner than voluntary submissions or a survey of FINRA members could provide. This data will be useful both for monitoring for risks as the pilot proceeds and, with sufficient participation, for developing a balanced assessment of the potential impact of permitting further remote inspection.

Anticipated Costs

Participation in the proposed pilot program is voluntary, and the proposed rule change provides firms with an additional method for complying with certain supervisory requirements without removing other methods of compliance. Eligible pilot program participants will therefore participate in the pilot program only if doing so is beneficial to their operations relative to complying with current Rule 3110. The cost of complying with the requirements of the proposed pilot program is a factor in this decision. These costs include conducting risk-based analyses for inspections and providing aggregated data on findings to FINRA. The data request in particular may require more standardization and aggregation of inspection findings than some member firms typically conduct. The data request may also not use the same terms or formats used by compliance officers for reporting and tracking inspection findings. Firms may need to develop new written supervisory procedures and new trainings for compliance staff to ensure that all required data is accurate and compiled and submitted to FINRA in a timely manner. Firms will incur new ongoing costs both for compliance and monitoring for compliance.

Supervision and inspections are intended to identify not only the activities that violate member procedures or FINRA rules but also poor practices that might ultimately allow for such violations. FINRA recognizes that remote inspections may be less likely to identify such practices or activities as on-site inspections. FINRA believes that risks to member firms and investors from remote inspections are mitigated by the proposed requirements to have written supervisory procedures for remote inspections, the proposed requirement to conduct and document risk assessments, the proposed limitations on the firms and locations that would be eligible to participate in the proposed pilot program, and the technology already employed for day-to-day supervision. In addition, FINRA will continue to closely monitor the outcomes of examinations during the pilot program period.

4. Alternatives Considered

The proposed pilot program would continue for three years. FINRA staff considered alternative durations for the program. FINRA members firms vary by business model and organizational structure, so a shorter program is less likely to yield enough data on inspection findings to allow for meaningful comparisons between on-site and remote inspection regimes across members. In addition, inspections are typically planned by members well ahead of time, so some members may not implement the requirements of the program until well into the duration of the pilot program. It may also help firms and the policy development process if FINRA had enough data to meaningfully evaluate well ahead of the expiration of the pilot program.

As discussed above, the requirements in proposed Rule 3110.18 would exclude some member firms entirely or partially by excluding some of their offices or locations from participating in the proposed pilot program. FINRA considered alternative pilot programs with fewer such exclusions. Firms that are entirely or partially excluded that would otherwise participate in the proposed pilot program do not incur a cost relative to the baseline, but they fail to receive the benefits of alternative programs in which they would choose to participate. Restrictions that exclude these firms not only limit the benefits of the pilot program but also limit the potential learnings from the proposed program. As a result, the same restrictions may ultimately need to be carried over into any ongoing program of risk-based examinations. The exclusion of such firms, however, should reduce any risk of customer

[112] *See* note 106, *supra. See also* Jose Maria Barrero, Nicholas Bloom & Steven J. Davis, Why Working from Home Will Stick (NBER Working Paper 28731, April 2021), *https://wfhresearch.com/wp-content/uploads/2021/04/w28731-3-May-2021.pdf,* who point to a lasting effect of the pandemic on work arrangements, in particular for those with higher education and earnings; and Alexander Bick, Adam Blandin & Karel Mertens, Work from Home Before and After the COVID–19 Outbreak, (Working Paper, October 2022), *https://karelmertenscom.files.wordpress.com/2022/11/wfh_oct_15_paper.pdf,* who find consistent results, with a higher adoption rate of work from home jobs in Finance and Insurance, relative to other industries, reflected in Figure 10. Both papers, based on different surveys and, in Bick et al., with added results from a model, conclude that around 22% of full workdays will be provided from home in the long run.

[113] For example, Advisers Act Rule 206(4)–7 does not require Registered Investment Advisers to conduct in-person inspections or reviews of its offices or personnel.

[114] *See* Ben Charoenwong, Zachary T. Kowaleski, Alan Kwan & Andrew Sutherland, RegTech (MIT Sloan Research Paper 6563–22, September 16, 2022), *http://dx.doi.org/10.2139/ssrn.4000016.* The authors show that broker-dealers that made compliance technology investments in response to the 2014 amendment of Exchange Act Rule 17a–5 were able to make complementary technology investments in communications and customer relationship management software. These resulted in a reduced number of complaints and less employee misconduct.

[115] In addition, if the effective date of the rule is such that the first year of the pilot program covers a period less than a full calendar year, participating firms would be required to provide, the data and information specified in proposed Rule 3110.18(h)(2).

[116] In addition, analysis of trends over time will need to consider changes in the macroeconomic environment.

harm from not having on-site inspections.[117]

In addition, FINRA considered the merits of adapting other requirements similar to those FINRA has proposed in the 2023 RSL Rule Filing.[118] In particular, the 2023 RSL Rule Filing is proposing to impose limitations on the offices or locations that may be designated as an RSL. One limitation is that an office or location at which an associated person has less than one year of supervisory experience with the firm or is functioning as a principal for a limited period in accordance with Rule 1210.04 (Requirements for Registered Persons Functioning as Principals for a Limited Period) would be ineligible for RSL designation. FINRA believes that adding these limitations to this proposed rule change would not be appropriate because the presence of even one such associated person at an office or location would disqualify an office or location of any size from participating in the proposed pilot program. FINRA believes that imposing these limitations in this proposed rule change would adversely impact the potential population of pilot program participants, which would then negatively impact FINRA's data and information collection efforts to gauge the effectiveness of remote inspections in a hybrid work environment. Moreover, FINRA believes that this proposed rule change provides for the appropriate controls for participation in the proposed pilot program.

Finally, FINRA considered different levels of detail for the data reporting requirement. FINRA has tried to carefully balance the reporting burden for firms with the need for enough information to make statistically valid comparisons. Nevertheless, depending on the number and type of pilot program participants, interpretation of the results will be subject to caveats.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The SEC published the 2022 Remote Inspections Pilot Program Rule Filing for comment and as of the end of the comment period on September 6, 2022, the SEC had received 24 comment letters, then subsequently received four more new comment letters.[119] On November 10, 2022, the Commission instituted proceedings to determine whether to approve or disapprove the 2022 Remote Inspections Pilot Program Rule Filing (''Order''), and the SEC received five comments letters in response to the Order.[120] On December 15, 2022, FINRA filed Partial Amendment No. 1 and responded to the comment letters.[121] On December 22, 2022, the SEC published the partial amendment to the 2022 Remote Inspections Pilot Program Rule Filing for comment and as of the end of the comment period on January 12, 2023, the SEC had received four comment letters.[122] On April 11, 2023, FINRA withdrew the 2022 Remote Inspections Pilot Program Rule Filing to consider whether more safeguards and clarifications to the filing would be appropriate in response to concerns raised by commenters. While the proposed rule change retains many of the terms set forth in the 2022 Remote Inspections Pilot Program Rule Filing, the proposed rule change makes some adjustments, which are discussed in detail above under Item II.A.1(IV).

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 45 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) by order approve or disapprove such proposed rule change, or

(B) institute proceedings to determine whether the proposed rule change should be 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.* Please include File Number SR–FINRA–2023–007 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–FINRA–2023–007. 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 a.m. and 3 p.m. Copies of such filing also will be available for inspection and copying at the principal office of FINRA. 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–FINRA–2023–007 and should be submitted on or before May 25, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[123]

Sherry R. Haywood,

Assistant Secretary.

[FR Doc. 2023–09444 Filed 5–3–23; 8:45 am]

BILLING CODE 8011–01–P

[117] *See* Zachary T. Kowaleski, Andrew G. Sutherland & Felix W. Vetter, Supervisor Influence on Employee Financial Misconduct (Working Paper, July 2022), *https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3646617.* This paper presents evidence that could be interpreted as supportive of the exclusions based on misconduct and lack of experience.

[118] *See* note 110, *supra.* FINRA previously filed a similar proposed rule change with the SEC to adopt proposed Rule 3110.19, which FINRA withdrew on March 29, 2022. *See https://www.finra.org/sites/default/files/2023-03/sr-finra-2022-019-withdrawal.pdf.*

[119] *See* note 52, *supra.*

[120] *See* Securities Exchange Act Release No. 96297 (November 10, 2022), 87 FR 68774 (November 16, 2022) (Order Instituting Proceedings to Determine Whether to Approve or Disapprove File No. SR–FINRA–2022–021).

[121] *See* Exhibits 2b and 2c.

[122] *See* note 52, *supra.*

[123] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97404; File No. SR–CBOE–2023–021]

Self-Regulatory Organizations; Cboe Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Cboe Options Rule 3.34

April 28, 2023.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 (the ''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 20, 2023, Cboe Exchange, Inc. (the ''Exchange'' or ''Cboe Options'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I and II below, which Items have been substantially prepared by the Exchange. The Exchange filed the proposal as a ''non-controversial'' proposed rule change pursuant to section 19(b)(3)(A)(iii) of the Act[3] and Rule 19b–4(f)(6) thereunder.[4] 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

Cboe Exchange, Inc. (the ''Exchange'' or ''Cboe Options'') proposes to amend Cboe Options Rule 3.34. The text of the proposed rule change is provided in error 5.

The text of the proposed rule change is also available on the Exchange's website (*http://www.cboe.com/AboutCBOE/CBOELegalRegulatoryHome.aspx*), at the Exchange's Office of the Secretary, 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 proposed rule change amends Cboe Options Rule 3.34. Specifically, the Exchange proposes to amend Cboe Options Rule 3.34 to reinsert requirements related to filing of an electronic Uniform Termination Notice for Securities Industry Registration (''Form U5'').

In 2021, following the approval of Financial Industry Regulatory Authority, Inc. (''FINRA'') rule changes, which, among other things, consolidated FINRA registration rules,[5] the Exchange amended, reorganized, and enhanced its rules regarding registration, qualification examinations, and continuing education, in order to conform the Exchange's rules more closely to those of its affiliated exchanges and non-affiliated exchanges in the interest of uniformity and to facilitate compliance with membership, registration and qualification regulatory requirements by members of multiple exchanges.[6]

As part of the rule change, the Exchange adopted new Cboe Options Rule 3.34, Electronic Filing Requirements for Uniform Forms, which, among other things, consolidated various Form U5 electronic filing requirements in a single location and also imposed certain new requirements. In consolidating the electronic filing requirements, the Exchange inadvertently removed requirements for the submission of Form U5 and related amendments, previously contained in Cboe Options Rule 3.37. Specifically, Cboe Options Rule 3.37(b) previously contained a requirement that a Form U5 must be electronically submitted by a Trading Permit Holder (''TPH'') organization immediately following the date of termination of any registered person, but in no event later than 30 days following termination. Further, the Exchange inadvertently removed the requirement for a copy of the Form U5 to be provided concurrently to the person whose association has been terminated, also previously contained in Cboe Options Rule 3.37(b). Finally, the Exchange inadvertently removed the requirement, previously set forth in Cboe Options Rule 3.37(c), that a TPH submit an amendment to the Form U5 in the event that the TPH learns of facts or circumstances causing any information set forth in the Form U5 to become inaccurate or incomplete, and that such amendment shall be provided concurrently to the person whose association has been terminated no later than 30 days after the TPH learns of the facts or circumstances giving rise to the need for the amendment.

The Exchange now proposes to amend Cboe Options Rule 3.34(e) to insert these provisions that were previously inadvertently deleted from Cboe Options Rule 3.37. Specifically, the Exchange proposes to amend Cboe Options Rule 3.34(e) to state that a Form U5 is required to be electronically submitted by a TPH organization immediately following the date of termination, but in no event later than 30 days following termination, and to state that a copy of the Form U4 [sic] shall be provided concurrently to the person whose association has been terminated. Further, the Exchange proposes to amend Cboe Options 3.34(e) to state that a TPH shall submit an amendment to the Form U5, in the event that the TPH organization learns of facts or circumstances causing any information set forth in the Form U5 to become inaccurate or incomplete, and that such amendment shall be provided concurrently to the person whose association has been terminated no later than 30 days after the TPH organization learns of the facts or circumstances giving rise to the need for the amendment.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the ''Act'') and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of section 6(b) of the Act.[7] Specifically, the Exchange believes the proposed rule change is consistent with the section 6(b)(5)[8] requirements that the rules of an exchange be 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,

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(iii).

[4] 17 CFR 240.19b–4(f)(6).

[5] *See* Exchange Act Release No. 81098 (July 7, 2017), 82 FR 32419 (July 13, 2017) (Order Approving File No. SR–FINRA–2017–007). *See also* FINRA Regulatory Notice 17–30 (SEC Approves Consolidated FINRA Registration Rules, Restructured Representative-Level Qualification Examinations and Changes to Continuing Education Requirements) (October 2017).

[6] *See* Exchange Act Release 34–91576 (April 15, 2021), 86 FR 20760 (April 21, 2021) (SR–CBOE–2021–022).

[7] 15 U.S.C. 78f(b).

[8] 15 U.S.C. 78f(b)(5).

processing information with respect to, and facilitating transactions in securities, 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. Additionally, the Exchange believes the proposed rule change is consistent with the section 6(b)(5) [9] requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In particular, the Exchange believes the proposed rule change will remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, will protect investors and the public interest by correcting errors and clarifying text within the Cboe Options Rules. Specifically, by adding language that was inadvertently removed regarding requirements for Form U5 submissions and amendments, the proposed rule change is designed to make the Rulebook more accurate and add clarity to the Cboe Options Rules, thereby mitigating any potential confusion for TPHs, particularly those who are also FINRA members. The Exchange believes the amendments reduce the possibility of a significant regulatory gap between Exchange and FINRA rules, providing more uniform standards across the securities industry. Further, the Exchange believes that the alignment of rules regarding Form U5 submissions and amendments immediately and expeditiously would serve to avoid potential confusion for those members registered at both the Exchange and FINRA, prevent unnecessary regulatory burdens, and promote the efficient administration of the rules.

The proposed rule change will have no impact on trading on the Exchange. As the Exchange did not intend to delete these requirements and did not provide specific notice to TPHs of any changes specifically regarding such requirements following the inadvertent deletion, the Exchange believes the proposed clarifying rule amendments will not result in any practical changes to the Form U5 submission and amendment process from an Exchange or TPH standpoint. The proposed requirements are merely being added back to the Rulebook for purposes of clarity and accuracy.

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 proposed rule change merely reinserts language that was inadvertently removed regarding requirements for Form U5 submissions and related amendments. As the Exchange did not intend to delete these requirements and did not provide notice to TPHs of any changes specifically regarding such requirements following the inadvertent deletion, the Exchange believes the proposed clarifying rule amendments will not result in any practical changes to the Form U5 submission and amendment process from an Exchange or TPH standpoint. Further, other Self-Regulatory Organizations (''SROs''), including FINRA, have continued to maintain these requirements for the submission of Form U5 and related amendments in their rules.[10]

The proposed rule change makes no substantive changes to the Cboe Options Rules, and thus will have no impact on trading on the Exchange. The proposed rule change is not intended to have any impact on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

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 from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to section 19(b)(3)(A) of the Act [11] and Rule 19b–4(f)(6) thereunder.[12]

A proposed rule change filed under Rule 19b–4(f)(6) normally does not become operative for 30 days after the date of filing. However, pursuant to Rule 19b–4(f)(6)(iii), the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that this proposed rule change may become operative immediately upon filing.[13]

Waiver of the 30-day operative delay would allow the Exchange to reinsert language that the Exchange states was inadvertently removed regarding requirements for Form U5 submissions and related amendments. As the Exchange states it did not intend to delete these requirements, did not provide notice to TPHs of any changes specifically regarding such requirements following the inadvertent deletion, and the other SROs, including FINRA, still have continued to maintain these requirements for the submission of Form U5 and related amendments in their rules, allowing a waiver will eliminating the regulatory gap between the FINRA and Exchange rules, providing more uniform standards across the securities industry, and helping to avoid confusion for registered persons of the Exchange that are also FINRA members. For this reason, the Commission believes that waiver of the 30-day operative delay for this proposal is consistent with the protection of investors and the public interest. Accordingly, the Commission hereby waives the 30-day operative delay and designates the proposal operative upon filing.[14]

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 change 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 (*https://www.sec.gov/rules/sro.shtml*); or

[9] *Id.*

[10] *See* FINRA By-Laws, Article V, Section 3.

[11] 15 U.S.C. 78s(b)(3)(A)(iii).

[12] 17 CFR 240.19b–4(f)(6).

[13] In addition, Rule 19b–4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file a proposed rule change under that subsection at least five business days prior to the date of filing, or such shorter time as designated by the Commission. 17 CFR 240.19b–4(f)(6)(iii). The Exchange has provided such notice.

[14] For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule change's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

• Send an email to *rule-comments@sec.gov.* Please include File Number SR–CBOE–2023–021 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–CBOE–2023–021. 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 (*https://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–CBOE–2023–021 and should be submitted on or before May 25, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[15]

Sherry R. Haywood,

Assistant Secretary.

[FR Doc. 2023–09447 Filed 5–3–23; 8:45 am]

BILLING CODE 8011–01–P

[15] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97406; File No. SR–CboeEDGX–2023–016]

Self-Regulatory Organizations; Cboe EDGX Exchange, Inc.; Suspension of and Order Instituting Proceedings To Determine Whether To Approve or Disapprove Proposed Rule Change To Amend the EDGX Equities Fee Schedule To Eliminate and Modify Certain Growth Tiers and Non-Displayed Step-Up Volume Tiers, Modify a Retail Growth Tier, Introduce New Fee Code DX and Modify Fee Code DQ

April 28, 2023.

I. Introduction

On March 1, 2023, Cboe EDGX Exchange, Inc. (the ''Exchange'' or ''EDGX'') filed with the Securities and Exchange Commission (''Commission''), pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 (''Exchange Act'' or ''Act''),[1] and Rule 19b–4 thereunder,[2] a proposed rule change (File Number SR–CboeEDGX–2023–016) to amend the EDGX Equities Fee Schedule (''Fee Schedule'') to eliminate and modify certain Growth Tiers and Non-Displayed Step-Up Volume Tiers, modify a Retail Growth Tier, introduce new fee code DX and modify fee code DQ.[3] The proposed rule change was immediately effective upon filing with the Commission pursuant to section 19(b)(3)(A) of the Act.[4] The proposed rule change was published for comment in the **Federal Register** on March 9, 2023.[5] The Commission has received no comment letters on the proposed rule change. Under section 19(b)(3)(C) of the Act,[6] the Commission is hereby: (i) temporarily suspending File Number SR–CboeEDGX–2023–016; and (ii) instituting proceedings to determine whether to approve or disapprove File Number SR–CboeEDGX–2023–016.

II. Description of the Proposed Rule Change

The Exchange operates a ''Maker-Taker'' model whereby it pays rebates to Members[7] that add liquidity and assesses fees to those that remove liquidity.[8] The Exchange also offers tiered pricing which provides Members opportunities to qualify for higher rebates or reduced fees where certain volume criteria and thresholds are met.[9] According to the Exchange, tiered pricing provides an incremental incentive for Members to strive for higher tier levels, which provides increasingly higher benefits or discounts for satisfying increasingly more stringent criteria.[10]

The Exchange proposes to amend its Fee Schedule to eliminate and modify certain Growth Tiers and Non-Displayed Step-Up Volume Tiers, modify a Retail Growth Tier, introduce new fee code DX and modify fee code DQ, which fee changes became effective on March 1, 2023.[11] With respect to the Exchange's Growth Tiers, the Exchange offers five Growth Tiers that each provide an enhanced rebate for Members' qualifying orders yielding fee codes B, V, Y, 3, and 4, where a Member reaches certain add volume-based criteria, including ''growing'' its volume over a certain baseline month.[12] The Exchange proposes to discontinue Growth Tiers 1–3 and to modify the criteria of Growth Tier 4 and Growth Tier 5 (renumbered to Growth Tier 1 and Growth Tier 2, respectively and referred to herein as ''proposed Growth Tier 1'' and ''proposed Growth Tier 2'').[13] Specifically, the Exchange proposes to add a third prong to the Required Criteria for proposed Growth Tier 1. As

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Notice, *infra* note 5, at 14658.

[4] 15 U.S.C. 78s(b)(3)(A). A proposed rule change may take effect upon filing with the Commission if it is designated by the exchange as ''establishing or changing a due, fee, or other charge imposed by the self-regulatory organization on any person, whether or not the person is a member of the self-regulatory organization.'' 15 U.S.C. 78s(b)(3)(A)(ii).

[5] *See* Securities Exchange Act Release No. 97042 (March 3, 2023), 88 FR 14657 (''Notice'').

[6] 15 U.S.C. 78s(b)(3)(C).

[7] *See* EDGX Rule 1.5(n). The term ''Member'' shall mean any registered broker or dealer that has been admitted to membership in the Exchange. A Member will have the status of a ''member'' of the Exchange as that term is defined in section 3(a)(3) of the Act. Membership may be granted to a sole proprietor, partnership, corporation, limited liability company or other organization which is a registered broker or dealer pursuant to section 15 of the Act, and which has been approved by the Exchange.

[8] *See* Notice, *supra* note 5, at 14658.

[9] *Id.*

[10] *Id.*

[11] *See* Notice, *supra* note 5, at 14658. Under footnotes 1 and 2 of the Exchange's Fee Schedule, the tiered pricing fee table lists the tier, the ''rebate per share to add'' or the ''fee per share to remove,'' as applicable, and the ''Required Criteria''—sometimes referred to as ''prongs''—that must be met by a Member in order to qualify for the applicable tiered pricing fee.

[12] *See* Notice, *supra* note 5, at 14658. *See also* Fee Schedule, Footnotes, 1, Add/Remove Volume Tiers.

[13] The Exchange states it is eliminating Growth Tiers 1–3 because no Members have satisfied those Growth Tier criteria within the past six months and the Exchange no longer wishes to, nor is required to, maintain such tiers. The Exchange states that it would rather redirect future resources and funding into other programs and tiers intended to incentivize increased order flow. *See* Notice, *supra* note 5, at 14658.

a result, the Required Criteria for proposed Growth Tier 1 is as follows:

• Proposed Growth Tier 1 provides a rebate of $0.0034 per share to qualifying orders (*i.e.,* orders yielding fee codes B, V, Y, 3, or 4) where 1) MPID adds a Step-Up ADAV [14] from October 2021 ≥ 0.12% of the TCV [15] or MPID adds a Step-Up ADAV from October 2021 ≥ 16,000,000; and 2) MPID adds an ADV [16] ≥ 0.30% of TCV or MPID adds an ADV ≥ 35,000,000; and 3) MPID adds an ADAV ≥ 0.30% of TCV with displayed orders that yield fee codes B, V, or Y.

In addition, the Exchange proposes to modify proposed Growth Tier 2 by adding a third prong to the Required Criteria. As a result, the Required Criteria for proposed Growth Tier 2 is as follows:

• Proposed Growth Tier 2 provides a rebate of $0.0034 per share to qualifying orders (*i.e.,* orders yielding fee codes B, V, Y, 3, or 4) where (1) Member adds a Step-Up ADAV from October 2022 ≥ 0.15% of the TCV or Member adds a Step-Up ADAV from October 2022 ≥ 15,000,000; and (2) Member has a total remove ADV ≥ 0.45% of TCV or Member has a total remove ADV ≥ 45,000,000; and (3) Member adds a Retail Step-Up ADV [17] (*i.e.,* yielding fee codes ZA or ZO) from August 2022 ≥ 0.10% of TCV.

The Exchange also offers Non-Displayed Step-Up Volume Tiers under footnote 1 of the Fee Schedule that each provide an enhanced rebate for Members' qualifying orders yielding fee codes DM, HA, MM, and RP, where a Member reaches certain volume-based criteria offered in each tier.[18] The Exchange proposes to discontinue the use of Non-Displayed Step-Up Volume Tiers 1 and 2, and to amend the criteria of current Non-Displayed Step-Up Volume Tier 3 (renumbered to proposed Non-Displayed Step-Up Volume Tier 1).[19] Specifically, the Exchange proposes to add a third prong to the Required Criteria for proposed Non-Displayed Step-Up Volume Tier 1. As a result, the Required Criteria for proposed Non-Displayed Step-Up Volume Tier 1 is as follows:

• Non-Displayed Step-Up Volume Tier 1 provides a rebate of $0.0026 per share to qualifying orders (*i.e.,* orders yielding fee code DM, HA, MM, or RP) where (1) Members adds a Step-Up ADAV from October 2022 ≥ 0.15% of the TCV or Member adds a Step-Up ADAV from October 2022 ≥ 15,000,000; (2) Member has a total remove ADV ≥ 0.45% of TCV or Member has a total remove ADV ≥ 45,000,000; and (3) Member adds a Retail Step-Up ADV (*i.e.,* yielding fee codes ZA or ZO) from August 2022 ≥ 0.10% of TCV.

Pursuant to footnote 2 of the Fee Schedule, the Exchange also offers Retail Volume Tiers which provide Retail Member Organizations (''RMOs'') [20] an opportunity to receive an enhanced rebate from the standard rebate for Retail Orders [21] that add liquidity (*i.e.,* yielding fee code ZA or ZO).[22] The Retail Volume Tiers offer three Retail Growth Tiers, where a Member is eligible for an enhanced rebate for qualifying orders (*i.e.,* yielding fee code ZA or ZO) meeting certain add volume-based criteria, including ''growing'' its volume over a certain baseline month.[23] The Exchange proposes to amend the Required Criteria for Retail Growth Tier 3 to add a third prong. As a result, the Required Criteria for Retail Growth Tier 3 is as follows:

• Retail Growth Tier 3 provides a rebate of $0.0037 per share to qualifying orders (*i.e.,* orders yielding fee code ZA or ZO) where (1) Member adds a Step-Up ADAV from October 2022 ≥ 0.15% of the TCV or Member adds a Step-Up ADAV from October 2022 ≥ 15,000,000; (2) Member has a total remove ADV ≥ 0.45% of TCV or Member has a total remove ADV ≥ 45,000,000; and (3) Members adds a Retail Step-Up ADV (*i.e.,* yielding fee code ZA or ZO) from August 2022 ≥ 0.10% of TCV.

Finally, the Exchange offers fee code DQ, which is appended to Midpoint Discretionary Orders (''MDOs'') [24] using the Quote Depletion Protection (''QDP'') [25] order instruction.[26] According to the Exchange, QDP is designed to provide enhanced protections to MDOs by tracking significant executions that constitute the best bid or offer on the EDGX Book and enabling Users to avoid potentially unfavorable executions by preventing MDOs entered with the optional QDP instruction from exercising discretion to trade at more aggressive prices when QDP has been triggered.[27] MDOs entered with the QDP instruction are appended fee code DQ and assessed a flat fee of $0.00040 per share in securities at or above $1.00 and 0.30% of dollar value for securities priced below $1.00.[28] The Exchange proposes to amend fee code DQ to be appended to MDOs entered with a QDP instruction that add liquidity to the Exchange.[29] The Exchange also proposes to introduce fee code DX, which would be appended to MDOs with a QDP instruction that remove liquidity from the Exchange.[30] Orders appended with fee code DX would be assessed a fee of $0.00060 per share in securities at or above $1.00 and 0.30% of dollar value for securities priced below $1.00.[31]

III. Suspension of the Proposed Rule Change

Pursuant to section 19(b)(3)(C) of the Act,[32] at any time within 60 days of the date of filing of an immediately effective proposed rule change pursuant to section 19(b)(1) of the Act,[33] the Commission summarily may temporarily suspend the change in the rules of a self-regulatory organization (''SRO'') if it appears to the Commission that such action is necessary or appropriate in the public interest, for

[14] ADAV means average daily added volume calculated as the number of shares added per day ADAV is calculated on a monthly basis. Step-Up ADAV means ADAV in the relevant baseline month subtracted from current ADAV. *See* Notice, *supra* note 5, at 14658, n. 9.

[15] TCV means total consolidated volume calculated as the volume reported by all exchanges and trade reporting facilities to a consolidated transaction reporting plan for the month for which the fees apply. *See* Notice, *supra* note 5, at 14658, n. 10.

[16] ADV means average daily volume calculated as the number of shares added to, removed from, or routed by, the Exchange, or any combination or subset thereof, per day. ADV is calculated on a monthly basis. *See* Fee Schedule, Definitions.

[17] Step-Up ADV means ADV in the relevant baseline month subtracted from current day ADV. *See* Fee Schedule, Definitions.

[18] *See* Notice, *supra* note 5, at 14659. *See also* Fee Schedule, Footnotes, 1, Add/Remove Volume Tiers.

[19] Similar to the elimination of Growth Tiers 1 and 2, the Exchange states that it is eliminating Non-Displayed Step-Up Volume Tiers 1 and 2 because no Members have satisfied the criteria within the past six months and the Exchange no longer wishes to, nor is required to, maintain such tiers. The Exchange states that it would rather redirect future resources and funding into other programs and tiers intended to incentivize increased order flow. *See* Notice, *supra* note 5, at 14659.

[20] *See* EDGX Rule 11.21(a)(1). A ''Retail Member Organization'' or ''RMO'' is a Member (or a division thereof) that has been approved by the Exchange under this Rule to submit Retail Orders.

[21] *See* EDGX Rule 11.21(a)(2). A ''Retail Order'' is an agency or riskless principal order that meets the criteria of FINRA Rule 5320.03 that originates from a natural person and is submitted to the Exchange by a Retail Member Organization, provided that no change is made to the terms of the order with respect to price or side of market and the order does not originate from a trading algorithm or any other computerized methodology.

[22] *See* Notice, *supra* note 5, at 14659. *See also* Fee Schedule, Footnotes, 2, Retail Volume Tiers.

[23] *See* Notice, *supra* note 5, at 14659.

[24] *See* Exchange Rule 11.8(g).

[25] *See* Exchange Rule 11.8(g)(10).

[26] *See* Notice, *supra* note 5, at 14659. *See also* Fee Schedule, Footnotes, 1, Add/Remove Volume Tiers.

[27] *See* Notice, *supra* note 5, at 14659.

[28] *See* Notice, *supra* note 5, at 14659. *See also* Fee Schedule, Footnotes, 1, Add/Remove Volume Tiers.

[29] *See* Notice, *supra* note 5, at 14659. There would be no change to the fee associated with fee code DQ.

[30] *See* Notice, *supra* note 5, at 14659.

[31] *Id.*

[32] 15 U.S.C. 78s(b)(3)(C).

[33] 15 U.S.C. 78s(b)(1).

the protection of investors, or otherwise in furtherance of the purposes of the Act. As discussed below, the Commission believes a temporary suspension of the proposed rule change is necessary and appropriate to allow for additional analysis of the proposed rule change's consistency with the Act and the rules thereunder.

In support of the proposal, the Exchange argues that is operates in a highly competitive market in which market participants can readily direct order flow to competing venues if they deem fee levels at a particular venue to be excessive or incentives to be insufficient.[34] The Exchange believes that its specific proposal reflects a competitive pricing structure designed to incentivize market participants to direct their order flow to the Exchange, which the Exchange believes would enhance market quality to the benefit of all Members.[35] The Exchange states that the Growth Tiers, Non-Displayed Step-Up Volume Tiers, and Retail Volume Tiers are intended to provide Members an opportunity to receive an enhanced rebate by increasing their order flow to the Exchange, which further contributes to a deeper, more liquid market and provides even more execution opportunities for active market participants.[36] As such, increased overall order flow benefits all Members by contributing towards a robust and well-balanced market ecosystem, according to the Exchange.[37]

Additionally, the Exchange notes that relative volume-based incentives and discounts have been widely adopted by exchanges, including the Exchange, and are reasonable, equitable and non-discriminatory because they are open to all Members on an equal basis and provide additional benefits or discounts that are reasonably related to (i) the value to an exchange's market quality and (ii) associated higher levels of market activity, such as higher levels of liquidity provision and/or growth patterns.[38] The Exchange states that competing equity exchanges offer similar tiered pricing structures, including schedules of rebates and fees that apply based upon Members achieving certain volume and/or growth thresholds, as well as assess similar fees or rebates for similar types of orders, to that of the Exchange.[39]

With respect to the proposed amendments to proposed Growth Tiers 1 and 2, proposed Non-Displayed Step-Up Volume Tier 1, and Retail Growth Tier 3 in particular, the Exchange states that such modifications are reasonable because they will be available to all Members and will provide all Members with an additional opportunity to receive an enhanced rebate.[40] The Exchange further believes that these specific modifications also will provide a reasonable means to encourage liquidity adding displayed orders, liquidity adding non-displayed orders, and retail orders, respectively, in Members' order flow to the Exchange and to incentivize Members to continue to provide liquidity adding volume to the Exchange by offering them an additional opportunity to receive an enhanced rebate on qualifying orders.[41] According to the Exchange, an overall increase in activity would deepen the Exchange's liquidity pool, offers additional cost savings, support the quality of price discovery, promote market transparency and improve market quality, for all investors.[42]

The Exchange believes that the proposed changes to proposed Growth Tiers 1 and 2, proposed Non-Displayed Step-Up Volume Tier 1, and Retail Growth Tier 3 are reasonable as they do not represent a significant departure from the criteria currently offered in the Fee Schedule.[43] The Exchange also believes that the proposal represents an equitable allocation of fees and rebates and is not unfairly discriminatory because all Members will be eligible for the proposed new tiers and have the opportunity to meet the tiers' criteria and receive the corresponding enhanced rebate if such criteria is met.[44] The Exchange also notes that proposed changes will not adversely impact any Member's ability to qualify for enhanced rebates offered under other tiers; should a Member not meet the proposed new criteria, the Member will merely not receive that corresponding enhanced rebate.[45]

When exchanges file their proposed rule changes with the Commission, including fee filings like the Exchange's present proposal, they are required to provide a statement supporting the proposal's basis under the Act and the rules and regulations thereunder applicable to the exchange.[46] The instructions to Form 19b–4, on which exchanges file their proposed rule changes, specify that such statement ''should be sufficiently detailed and specific to support a finding that the proposed rule change is consistent with [those] requirements.''[47]

Section 6 of the Act, including sections 6(b)(4), (5), and (8), requires the rules of an exchange to (1) provide for the equitable allocation of reasonable fees among members, issuers, and other persons using the exchange's facilities;[48] (2) perfect the mechanism of a free and open market and a national market system, protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers;[49] and (3) not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[50]

In temporarily suspending the Exchange's fee change, the Commission intends to further consider whether the proposal, in particular the proposed modifications to certain Growth Tiers, Non-Displayed Step-Up Volume Tiers, and a Retail Growth Tier, is consistent with the statutory requirements applicable to a national securities exchange under the Act. The Commission will consider whether the proposed rule change satisfies the standards under the Act and the rules thereunder requiring, among other things, that an exchange's rules provide for the equitable allocation of reasonable fees among members, issuers, and other persons using its facilities; not permit unfair discrimination between customers, issuers, brokers or dealers; and do not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[51]

Therefore, the Commission finds that it is appropriate in the public interest, for the protection of investors, and otherwise in furtherance of the purposes of the Act, to temporarily suspend the proposed rule change.[52]

IV. Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

In addition to temporarily suspending the proposal, the Commission also

[34] *See* Notice, *supra* note 5, at 14660.

[35] *Id.*

[36] *See* Notice, *supra* note 5, at 14659.

[37] *Id.*

[38] *See* Notice, *supra* note 5, at 14660.

[39] *Id.*

[40] *Id.*

[41] *Id.*

[42] *Id.*

[43] *Id.*

[44] *Id.*

[45] *Id.*

[46] *See* 17 CFR 240.19b–4 (Item 3 entitled ''Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change'').

[47] *Id.*

[48] 15 U.S.C. 78f(b)(4).

[49] 15 U.S.C. 78f(b)(5).

[50] 15 U.S.C. 78f(b)(8).

[51] *See* 15 U.S.C. 78f(b)(4), (5), and (8), respectively.

[52] For purposes of temporarily suspending the proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

hereby institutes proceedings pursuant to sections 19(b)(3)(C)[53] and 19(b)(2)(B) of the Act[54] to determine whether the proposed rule change should be approved or disapproved. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, the Commission seeks and encourages interested persons to provide additional comment on the proposed rule change to inform the Commission's analysis of whether to approve or disapprove the proposed rule change.

Pursuant to section 19(b)(2)(B) of the Act,[55] the Commission is providing notice of the grounds for possible disapproval under consideration:

- Whether the Exchange has demonstrated how the proposal is consistent with section 6(b)(4) of the Act, which requires that the rules of a national securities exchange ''provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other persons using its facilities;''[56]
- Whether the Exchange has demonstrated how the proposal is consistent with section 6(b)(5) of the Act, which requires, among other things, that the rules of a national securities exchange be ''designed to perfect the operation of a free and open market and a national market system'' and ''protect investors and the public interest,'' and not be ''designed to permit unfair discrimination between customers, issuers, brokers, or dealers;''[57] and
- Whether the Exchange has demonstrated how the proposal is consistent with section 6(b)(8) of the Act, which requires that the rules of a national securities exchange ''not impose any burden on competition not necessary or appropriate in furtherance of the purposes of [the Act].''[58]

As discussed in Section III above, the Exchange argues that all Members will be eligible for the proposed new tiers and have the opportunity to meet the tiers' criteria. The Exchange further states the proposal provides a reasonable means to incentivize Members to continue to send certain types of order flow to the Exchange. Because the proposed growth and step-up tiers are designed to provide more favorable pricing to Members with volume increases over specified baseline months, questions are raised as to whether the Exchange has satisfied its burden to demonstrate that such tiers will, as the Exchange argues, continue to provide a reasonable means to incentivize Members to send certain types of order flow to the Exchange, in a manner consistent with the Act and the rules thereunder when the specified baseline months remain the same and may continue indefinitely.

Under the Commission's Rules of Practice, the ''burden to demonstrate that a proposed rule change is consistent with the [Act] and the rules and regulations issued thereunder . . . is on the [SRO] that proposed the rule change.''[59] The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,[60] and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Act and the applicable rules and regulations.[61]

The Commission is instituting proceedings to allow for additional consideration and comment on the issues raised herein, including as to whether the proposal is consistent with the Act, specifically, with its requirements that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees, and other charges among its members, issuers, and other persons using its facilities; are designed to perfect the operation of a free and open market and a national market system, and to protect investors and the public interest; are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers; and do not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act;[62] as well as any other provision of the Act, or the rules and regulations thereunder.

V. Commission's Solicitation of Comments

The Commission requests written views, data, and arguments with respect to the concerns identified above as well as any other relevant concerns. Such comments should be submitted by May 25, 2023. Rebuttal comments should be submitted by June 8, 2023. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[63]

The Commission asks that commenters address the sufficiency and merit of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change.

Interested persons are invited to submit written data, views, and arguments concerning the proposed rule change, including whether the proposal is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*https://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File No. SR–CboeEDGX–2023–016 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–CboeEDGX–2023–016. 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 (*https://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements

[53] 15 U.S.C. 78s(b)(3)(C). Once the Commission temporarily suspends a proposed rule change, section 19(b)(3)(C) of the Act requires that the Commission institute proceedings under section 19(b)(2)(B) to determine whether a proposed rule change should be approved or disapproved.

[54] 15 U.S.C. 78s(b)(2)(B).

[55] 15 U.S.C. 78s(b)(2)(B). Section 19(b)(2)(B) of the Act also provides that proceedings to determine whether to disapprove a proposed rule change must be concluded within 180 days of the date of publication of notice of the filing of the proposed rule change. *See id.* The time for conclusion of the proceedings may be extended for up to 60 days if the Commission finds good cause for such extension and publishes its reasons for so finding, or if the exchange consents to the longer period. *See id.*

[56] 15 U.S.C. 78f(b)(4).

[57] 15 U.S.C. 78f(b)(5).

[58] 15 U.S.C. 78f(b)(8).

[59] 17 CFR 201.700(b)(3).

[60] *See id.*

[61] *See id.*

[62] *See* 15 U.S.C. 78f(b)(4), (5), and (8).

[63] 15 U.S.C. 78s(b)(2). Section 19(b)(2) of the Act grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by an SRO. *See* Securities Acts Amendments of 1975, Report of the Senate Committee on Banking, Housing and Urban Affairs to Accompany S. 249, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

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–CboeEDGX–2023–016 and should be submitted on or before May 25, 2023. Rebuttal comments should be submitted by June 8, 2023.

VI. Conclusion

It is therefore ordered, pursuant to section 19(b)(3)(C) of the Act,[64] that File Number SR–CboeEDGX–2023–016 be and hereby is, temporarily suspended. In addition, the Commission is instituting proceedings to determine whether the proposed rule change should be approved or disapproved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[65]

Sherry R. Haywood,

Assistant Secretary.

[FR Doc. 2023–09448 Filed 5–3–23; 8:45 am]

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[64] 15 U.S.C. 78s(b)(3)(C).

[65] 17 CFR 200.30–3(a)(57) and (58).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97403; File No. SR–FINRA–2023–008]

Self-Regulatory Organizations; Financial Industry Regulatory Authority, Inc.; Notice of Filing of a Proposed Rule Change To Amend FINRA Rules 1015, 9261, 9341, 9524, 9830 and Funding Portal Rule 900 (Code of Procedure) To Permit Hearings Under Those Rules To Be Conducted by Video Conference

April 28, 2023.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'')[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 26, 2023, the Financial Industry Regulatory Authority, Inc. (''FINRA'') 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 FINRA. 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

FINRA is proposing to amend FINRA Rules 1015, 9261, 9341, 9524 and 9830 and Funding Portal Rule 900 to allow for video conference hearings before the Office of Hearing Officers (''OHO'') and the National Adjudicatory Council (''NAC'') under specified conditions.

The text of the proposed rule change is available on FINRA's website at *http://www.finra.org,* at the principal office of FINRA 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, FINRA 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. FINRA has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Due to the COVID–19 global health crisis, FINRA administratively postponed in-person hearings for over six months beginning in March of 2020, which resulted in an expanding backlog of cases that could have compromised FINRA's ability to provide timely adjudicatory processes and fulfill its statutory obligations to protect investors and maintain fair and orderly markets. To address that backlog and mitigate the consequences of a stalled adjudicatory system, FINRA adopted temporary rules that allow OHO and the NAC to order, without a motion, hearings to proceed by video conference based on public health risks related to COVID–19.[3] These were extended several times due to the continuing public health risks and logistical challenges related to COVID–19, including whether hearing participants could safely travel and abide by state or local quarantine requirements.[4]

FINRA is proposing to make the temporary amendments regarding video conference hearings permanent, with some modifications that would allow for the use of video conference for reasons in addition to COVID–19.[5] The use of

[3] *See* Securities Exchange Act Release No. 88917 (May 20, 2020), 85 FR 31832 (May 27, 2020) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2020–015) and Securities Exchange Act Release No. 89737 (September 2, 2020), 85 FR 55712 (September 9, 2020) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2020–027).

[4] *See* Securities Exchange Act Release No. 90619 (December 9, 2020), 85 FR 81250 (December 15, 2020) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2020–042); Securities Exchange Act Release No. 91495 (April 7, 2021), 86 FR 19306 (April 13, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2021–006); Securities Exchange Act Release No. 92685 (August 17, 2021), 86 FR 47169 (August 23, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2021–019); Securities Exchange Act Release No. 93758 (December 13, 2021), 86 FR 71695 (December 17, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2021–031); Securities Exchange Act Release No. 94430 (March 16, 2022), 87 FR 16262 (March 22, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2022–004); Securities Exchange Act Release No. 95281 (July 14, 2022), 87 FR 43335 (July 20, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2022–018); Securities Exchange Act Release No. 96107 (October 19, 2022), 87 FR 64526 (October 25, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2022–029); and Securities Exchange Act Release No. 96746 (January 25, 2023), 88 FR 6346 (January 31, 2023) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2023–001); *see also supra* note 3.

[5] For ease of reference in this filing, FINRA refers to the pre-pandemic rules as ''original rules'' and

Continued

video conference technology in OHO and NAC hearings under the temporary amendments has demonstrated that video is an effective and efficient alternative to in-person hearings.[6] FINRA has used high quality, secure and user-friendly technology to allow for hearings conducted by video conference to parallel the experience of conducting hearings in person.[7] This technology was crucial in enabling OHO and the NAC to timely resolve pending cases when it was unsafe to conduct hearings in person.

FINRA believes that the use of video conference technology has improved FINRA's operations during the COVID–19 pandemic, and the proposed rule change will continue to improve and modernize FINRA's operations so that parties, panelists, and FINRA staff may proceed expeditiously by video conference in the event of certain circumstances, including where unforeseen events make appearing in person difficult or impracticable. As described below, impracticability is intended to account for an uncommon situation or extraordinary circumstance.

Background

OHO conducts hearings in disciplinary proceedings[8] and hearings for temporary and permanent cease and desist orders (''TCDOs'' and ''PCDOs'').[9] When orders in disciplinary proceedings are appealed, the NAC holds hearings on oral argument.[10] The NAC also conducts hearings in membership proceedings,[11] eligibility proceedings,[12] and Funding Portal eligibility proceedings.[13]

Under the original rules, such hearings were generally conducted in person.[14] The temporary amendments give OHO and the NAC authority[15] to conduct hearings, in whole or in part, by video conference if warranted by the current public health risks presented by an in-person hearing.[16] Since 2020, such public health risks have related to the COVID–19 pandemic.

Under the proposed rule change, OHO and the NAC's authority to order hearings by video conference would extend beyond the public health risks posed by COVID–19 to other similar situations in which proceeding in person may endanger the health or safety of the participants or would be impracticable. For example, appearing in person may be impracticable in the event of a natural disaster or terrorist attack that caused travel to be cancelled for a period of time.

In addition, the proposed rule change would differ from the temporary amendments in two respects. First, under the proposed rule change, OHO and the NAC would also have authority to order hearings to occur by video conference based on a motion. Second, the proposed rule change would provide more flexibility for using video conference for oral arguments in appeals from disciplinary proceedings than for evidentiary hearings due to the differences between those types of hearings.[17] As explained below, the motion requirements and the standard that the Adjudicator would follow when exercising authority under the proposed rule change differ somewhat depending on the type of hearing involved.

As with the temporary amendments, under the proposed rule change, in-person hearings will remain the default method for hearings before OHO and the NAC, and their exercise of authority under the proposed rule change would be discretionary. In-person hearings may take place where safe and appropriate.

FINRA's protocols for conducting hearings by video conference will be the same as under the temporary amendments. FINRA would, among other things, use a high quality, secure and user-friendly video conferencing service and provide thorough instructions, training, and technical support to all hearing participants.

The proposed rule changes with respect to evidentiary hearings and oral argument are discussed, in turn, below.

Evidentiary Hearings Before OHO and the NAC

For evidentiary hearings, the proposed rule change would give OHO or the NAC authority to order an evidentiary hearing to occur by video conference, in whole or in part, if OHO or the NAC determines that proceeding in person may endanger the health or safety of the participants or would be impracticable, as described above. OHO and the NAC would have such authority on their own (*i.e., sua sponte*).[18]

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to the temporary changes to the original rules as ''temporary amendments.''

[6] Since the temporary amendments were implemented, OHO and the NAC have conducted numerous hearings by video conference. As of March 31, 2023, OHO has conducted 18 disciplinary hearings by video conference (decisions have been issued in all but one of these cases). Also, as of March 31, 2023, the NAC, through the relevant Subcommittee, has conducted 19 oral arguments by video conference in connection with appeals of FINRA disciplinary proceedings pursuant to FINRA Rule 9341(d), as temporarily amended. Furthermore, the NAC has conducted via video conference a one-day evidentiary hearing in a membership application proceeding pursuant to FINRA Rule 1015, as temporarily amended. The NAC also has conducted via video conference three evidentiary hearings in eligibility matters pursuant to FINRA Rule 9524, as temporarily amended.

[7] Under the temporary amendments, FINRA has conducted video conference hearings using Zoom, which has been vetted by FINRA's information technology staff. The platform and procedures for conducting video conference hearings under the temporary amendments are described in SR–FINRA–2020–027, *supra* note 3.

[8] *See* FINRA Rule 9261. The FINRA Rule 9200 Series sets forth the procedures for disciplinary proceedings initiated by the Department of Enforcement against any FINRA member or associated person for alleged violation of any rule, regulation, or statutory provision that FINRA has jurisdiction to enforce, including the federal securities laws and the regulations thereunder.

[9] *See* FINRA Rule 9830. The FINRA Rule 9800 Series sets forth the procedures for TCDO and PCDO proceedings. These provide a mechanism to take necessary remedial action against a member or associated person where there is a significant risk that the alleged misconduct could cause continuing harm to the investing public, if not addressed expeditiously.

[10] *See* FINRA Rule 9341. The FINRA Rule 9300 Series sets forth the procedures for review of disciplinary proceedings by the NAC.

[11] *See* FINRA Rule 1015. The FINRA Rule 1000 Series governs, among other things, the process for (i) applying for FINRA membership; (ii) FINRA members to seek approval of a change in ownership, control or business operations, and (iii) an applicant to request that the NAC review a FINRA decision rendered under the Rule 1000 Series.

[12] *See* FINRA Rule 9524. The FINRA Rule 9520 Series sets forth the procedures for eligibility proceedings and review of those proceedings by the NAC and FINRA Board.

[13] *See* FINRA Funding Portal Rule 900. Funding portal members are subject to the FINRA Rule 9000 Series, except for the FINRA Rule 9520 Series, FINRA Rule 9557, FINRA Rule 9561, and the FINRA Rule 9700 Series and specified provisions, as set forth under Funding Portal Rule 900, written specifically for funding portals. *See* Securities Exchange Act Release No. 76970 (January 22, 2016), 81 FR 4931 (January 28, 2016) (Order Approving File No. SR–FINRA–2015–040). Paragraph (b) of Funding Portal Rule 900 was established as a streamlined version of the FINRA Rule 9520 Series and sets forth the procedures for funding portal eligibility proceedings. Although paragraph (b) was not temporarily amended, FINRA includes it in this filing so that the procedures for funding portal eligibility proceedings are aligned with eligibility proceedings under the FINRA Rule 9520 Series. The proposed rule change would allow for both of those types of hearings to be conducted by video conference.

[14] Telephonic testimony and hearings are explicitly permitted in expedited proceedings. *See* FINRA Rule 9559(d)(5) (expedited proceedings ''shall be held by telephone conference, unless the Hearing Officer orders otherwise for good cause shown'').

[15] For OHO hearings, the Chief or Deputy Chief Hearing Officer has such authority; for NAC hearings, the NAC or relevant Subcommittee has such authority.

[16] *See supra* note 3.

[17] For ease of reference, ''evidentiary hearings'' refers to hearings conducted before OHO under FINRA Rules 9261 and 9830, and the NAC under FINRA Rules 1015, 9524, and Funding Portal Rule 900. ''Oral argument'' refers to hearings conducted before the NAC in appeals from disciplinary proceedings under Rule 9341. *See supra* notes 8–13 and accompanying text.

[18] OHO and the NAC would have such authority over the objection of a party. The same is true under the temporary amendments. *See* SR–FINRA–2020–027, *supra* note 3.

In addition, under the proposed rule change, parties could file a joint motion requesting the hearing to occur, in whole or in part, by video conference based on a showing of good cause. Due to the nature of evidentiary hearings, which often occur over multiple days and generally include numerous documents in evidence and witness testimony, the proposed rule change would require any motions for a hearing by video conference to be joined by all parties, and even joint motions may be denied if the Adjudicator determines that good cause has not been shown.[19]

Whether acting on its own or based on a joint motion of the parties, OHO and the NAC would have reasonable discretion to exercise their authority under the proposed rule change. In deciding whether to schedule a hearing by video conference, OHO and the NAC could consider and balance a variety of factors including, for example and without limitation, a hearing participant's individual health concerns and access to the connectivity and technology necessary to participate in a video conference hearing.

Oral Argument Before the NAC

The proposed rule change would give the NAC authority to order an oral argument hearing to occur by video conference, in whole or in part, if it determines that proceeding in person may endanger the health or safety of the participants or would be impracticable. The NAC would have such authority on its own.

In addition, under the proposed rule change, the NAC would have authority—on its own or on consideration of a motion by any party—to order oral argument to occur by video conference, in whole or in part, for other reasons (*i.e.,* reasons not limited to public health, safety or impracticability). Under such circumstances, an opposing party would have the opportunity to demonstrate that the hearing should proceed in person because proceeding by video conference would materially disadvantage that party. Whether a party has shown material disadvantage would depend on the facts and circumstances. Considerations may include, for example and without limitation, case complexity, the issues on appeal, and whether the respondent is *pro se* and desires to appear in person.

Under the proposed rule change, the NAC would have greater flexibility to allow oral argument to occur by video conference than evidentiary hearings, with an additional safeguard for parties who believe that holding oral argument by video conference would materially disadvantage them. The proposal as to NAC oral argument thus differs from the proposal for evidentiary hearings in three respects: (1) it would give the NAC *sua sponte* authority to order oral argument hearings to occur by video conference for reasons other than public health, safety, or impracticability; (2) it would allow for motions by a single party rather than joint; and (3) under either of those circumstances, a party could oppose on grounds that proceeding by video conference would materially disadvantage that party. These proposed differences are due to the nature of oral argument hearings, which are typically shorter than evidentiary hearings in duration (generally two hours or less), contain no presentation of new documentary evidence or witness testimony, and are often conducted by counsel.

Whether acting on its own or based on a motion of a party, the NAC would have reasonable discretion to exercise its authority under the proposed rule change. In deciding whether to order an oral argument hearing by video conference, the NAC could consider and balance a variety of factors including, for example and without limitation, a hearing participant's individual health concerns, access to video conference technology, whether a party has delayed or refused to appear in person, and whether proceeding by video conference would materially disadvantage any party.[20]

If the Commission approves the proposed rule change, FINRA will announce the effective date of the proposed rule change in a Regulatory Notice.

2. Statutory Basis

FINRA believes that the proposed rule change is consistent with the provisions of Section 15A(b)(6) of the Act,[21] which requires, among other things, that FINRA rules must be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest. FINRA believes that the proposed rule change is also consistent with Section 15A(b)(8) of the Act,[22] which requires, among other things, that FINRA rules provide a fair procedure for the disciplining of members and persons associated with members.

FINRA believes that the proposed rule change protects investors and the public interest by permitting the use of broadly available technology to allow hearings to proceed by video conference under certain circumstances. FINRA's disciplinary and eligibility proceedings and other review processes serve a critical role in providing investor protection and maintaining fair and orderly markets by, for example, sanctioning misconduct and preventing further customer harm by members and associated persons. The proposed rule change would encourage the prompt resolution of these cases while preserving fair process.

The proposed rule change promotes efficiency by permitting hearings to occur by video conference in situations where the hearings would otherwise be postponed for an uncertain period of time. As discussed, this occurred in 2020 when in person hearings were postponed for over six months, resulting in a backlog of cases. COVID–19 necessitated FINRA to propose the temporary amendments, which were extended due to the continuing health risks of COVID–19, as well as limitations on travel, quarantine requirements, and other logistical challenges to safely conducting hearings in person.[23] The proposed rule change further promotes efficiency by giving OHO and the NAC authority to act quickly if a future unexpected event impaired their ability to conduct in-person hearings safely.

The proposed rule change also serves to provide a fair procedure for the disciplining of members and persons associated with members by allowing hearings to proceed by video conference not only due to public health or safety reasons, but also at a party or the parties' request for reasons particular to them. The Adjudicator could allow a hearing to proceed by video conference in the exercise of reasonable discretion and subject to procedural safeguards that ensure fairness. For evidentiary hearings, these safeguards include the requirements that any motions be joined

[19] FINRA notes that its current practice is to allow witnesses in an otherwise in-person hearing to appear by video conference. In evidentiary hearings, a party may file a motion to offer witness testimony by telephone or video conference. Further, even prior to the COVID–19 pandemic, Adjudicators have allowed telephone participation by witnesses who are unable or unwilling to appear in person, such as customers over whom FINRA does not have jurisdiction and therefore cannot compel testimony under FINRA Rule 8210.

[20] FINRA notes that the proposed rule change would impact all members, including members that are funding portals or have elected to be treated as capital acquisition brokers (''CABs''), given that the CAB rule set incorporate the impacted FINRA rules by reference and that, under the Funding Portal Rules, funding portal members are subject to the FINRA Rule 9000 Series, with specified exceptions as set forth under Funding Portal Rule 900. *See supra* note 13.

[21] 15 U.S.C. 78*o*–3(b)(6).

[22] 15 U.S.C. 78*o*–3(b)(8).

[23] *See supra* notes 3 & 4 and accompanying text.

by all parties and show good cause. For oral argument, these safeguards include the ability of any party to oppose an order or motion to proceed by video conference on grounds that doing so would materially disadvantage that party.

Thus, the proposed rule change represents a significant step toward modernizing FINRA's procedures in a manner that preserves in-person hearings, but allows for the use of video conference technology under certain circumstances.

B. Self-Regulatory Organization's Statement on Burden on Competition

FINRA does not believe that the proposed rule change would result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Economic Impact Assessment

FINRA has undertaken an economic impact assessment, as set forth below, to analyze the potential economic impacts of the proposed rule change, including anticipated costs, benefits, and distributional and competitive effects, relative to the current baseline, and the alternatives FINRA considered in assessing how best to meet FINRA's regulatory objectives.

1. Regulatory Need

FINRA does not have permanent rules that allow for video conference hearings before OHO and the NAC, even when both parties prefer proceeding by video conference, or doing so would not materially disadvantage any party, or when video conference is the only practicable method. The proposed rule change would create permanent rules that would allow video conference hearings under some of these circumstances, with safeguards. The proposed rule change would allow certain proceedings by video conference where both parties prefer doing so and show good cause, or where neither party would be materially disadvantaged. The proposed rule change would also enable FINRA to respond to serious health, natural disaster, or other unanticipated events more quickly and adeptly in the future, so that hearings can proceed on time without the need for long postponements or cancellations. As discussed above, the use of video conference hearings for approximately two and a half years has demonstrated that this technology can efficiently resolve pending cases and effectively parallel the experience of conducting hearings in person. The proposed rule change would build on this experience.

2. Economic Baseline

The economic baseline for the proposed rule change consists of the original FINRA Rules 1015, 9261, 9341, 9524 and 9830 and Funding Portal Rule 900. As discussed earlier, these rules govern disciplinary proceedings before OHO, appeals before the NAC, and other types of hearings. Under these rules, oral arguments before the NAC and evidentiary hearings before OHO and the NAC are typically conducted in person at various venues across the country. Due to the COVID–19 pandemic, FINRA temporarily amended its rules to allow OHO and the NAC to order, without a motion, evidentiary hearings to proceed by video conference based on public health risks related to COVID–19. The temporary amendments also allow oral arguments before the NAC to proceed by video conference.

The number of new cases filed in OHO and NAC disciplinary proceedings and the number of respondents in these proceedings in the past five years are presented in Table 1 below. The numbers show that the majority of respondents in OHO filings and NAC appeals consist of associated persons.

TABLE 1—NUMBER OF NEW CASES FILED IN OHO AND NAC DISCIPLINARY PROCEEDINGS AND NUMBER OF RESPONDENTS, 2018–2022

	2018	2019	2020	2021	2022
OHO Disciplinary Proceedings	43	40	34	32	24
OHO Respondents: Firms Only	0	2	2	0	2
OHO Respondents: Associated Persons Only	38	35	30	28	20
OHO Respondents: Both Firms and Associated Persons	5	3	2	4	2
NAC Disciplinary Appeals	20	16	10	11	6
NAC Respondents: Firms Only	1	1	0	1	1
NAC Respondents: Associated Persons Only	15	11	8	10	4
NAC Respondents: Both Firms and Associated Persons	4	4	2	0	1

FINRA has also collected information on the use of video conference in evidentiary hearings in OHO and NAC proceedings and oral arguments before the NAC in the past five years. The information is presented in Table 2 below. The numbers show that no evidentiary hearings before OHO and the NAC or oral arguments before the NAC proceeded by video conference in the two years prior to the pandemic starting in 2020, whereas almost all of those types of hearings proceeded by video conference after 2020.

TABLE 2—USE OF VIDEO CONFERENCE IN OHO AND NAC EVIDENTIARY HEARINGS AND NAC ORAL ARGUMENTS, 2018–2022

	2018	2019	2020	2021	2022
Number of Evidentiary Disciplinary Hearings before OHO	21	12	8	10	5
Number of Evidentiary Disciplinary Hearings before OHO by Video Conference	0	0	3	9	5
Number of Oral Arguments before NAC	15	11	10	4	6
Number of Oral Arguments before NAC by Video Conference	0	0	9	4	6
Number of Evidentiary Hearings before NAC	6	0	0	1	3
Number of Evidentiary Hearings before NAC by Video Conference	0	0	0	1	3

3. Economic Impacts

The proposed rule change will directly impact current and former member firms (including members that are funding portals) and their associated persons. These individuals would be applicants or respondents in proceedings before OHO and the NAC, including appeals from disciplinary proceedings. The proposed rule change is also expected to affect their counsel and other participants, and the proposed rule change may also affect investors associated with the matter, and in some cases, investors more generally.

As described earlier, there have been only a limited number of new cases or appeals filed annually in relevant OHO and NAC proceedings in the past five years. Most of these cases or appeals involved only one respondent. Based on these historical numbers, only a very small fraction of members and associated persons will likely be affected by the proposed rule change.

The primary impact of the proposed rule change would be to reduce delay in resolving relevant matters in extraordinary circumstances (*e.g.,* a serious public health situation, natural disaster, or other unanticipated emergency event), or when the parties jointly move for an evidentiary hearing to proceed virtually and establish good cause for doing so, or when neither party would be materially disadvantaged by holding oral argument by video conference for reasons other than health, safety or impracticability. Depending on the matter and the amount of delay that can potentially be avoided, the proposed rule change may have a significant economic impact on affected parties and relevant stakeholders.

Under the baseline, a serious public health situation, natural disaster, or other unanticipated emergency event may either delay proceedings, prevent travel, or require parties to consider traveling and appearing in person despite the elevated risk. As discussed, until the temporary amendments were in effect, FINRA administratively postponed hearings for over six months due to concerns about the safety of conducting hearings in person, travel restrictions, quarantine requirements, and other logistical challenges.[24] Where delay may occur, as it did in 2020, the proposed rule change would allow FINRA to conduct video conference hearings, thereby reducing delay in resolving matters before OHO and the NAC. As FINRA's adjudicatory functions are essential to deterring and providing redress in cases of investor harm, and for protecting market integrity, reducing delay will broadly benefit investors and the markets. Members and associated persons may also benefit from reduced delay in resolving their matters.

Participants in relevant proceedings who, under the baseline, are required to travel and attend hearings in person despite elevated risk will benefit from reduced health and safety risk under the proposed rule change. By allowing video conference hearings and oral arguments either by order of the Adjudicator on its own or on motion of the parties, the proposed rule change would result in reduced travel time and costs for all participants. The cost reductions may vary depending on the nature and length of the proceedings, the number of individuals who must travel, and the distance of the required travel.

Parties may incur additional costs relative to the pre-pandemic baseline. These additional costs may arise from technological challenges such as bandwidth or connectivity issues and concerns related to presenting arguments and evidence in a virtual environment. FINRA believes that cost increases will likely be limited for most parties, after considering the overall positive experience of conducting video conference evidentiary hearings and appellate oral arguments under the temporary amendments.

Parties who are required to participate by video conference under the proposed rule change and believe that they cannot present their arguments and evidence as well as in person, may perceive the potential costs associated with the proposed rule change as large compared with the potential benefits. They may thus prefer a delayed in-person hearing under the above circumstances to a video conference hearing. These potential costs will depend on how Adjudicators define and apply the ''impracticable'' and ''health or safety'' standards as well as the ''good cause'' and ''materially disadvantage'' standards, among other factors.

4. Alternatives Considered

FINRA considered applying the same standards to NAC oral argument as to evidentiary hearings. Under this alternative, the NAC could order a scheduled in-person oral argument hearing to occur by video conference for health, safety or impracticability reasons only, and when considering a motion, would require the motion to be joined by all parties and show good cause. Parties who prefer to appear in-person due to concerns about technical or other difficulties to presenting their case by video conference may perceive a lower cost from the less flexible alternative relative to the proposed rule change. This perceived cost reduction, however, should be limited since the proposed rule change would allow such parties to oppose an order or motion to proceed by video conference on grounds that doing so would materially disadvantage them. Further, any cost reduction relative to the proposed rule change would likely be bounded because, as discussed, NAC oral arguments are typically short in duration, contain no presentation of new evidence, and are often conducted by counsel. The alternative would also likely lead to more potential delays in resolving appeals of disciplinary matters. Thus, FINRA believes that the proposed rule change strikes the appropriate balance between preserving the efficiencies in OHO and NAC proceedings that were achieved during the pandemic and ensuring a fair process for parties in evidentiary hearings and appeals.

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

Within 45 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) by order approve or disapprove such proposed rule change, or

(B) institute proceedings to determine whether the proposed rule change should be 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 (*https://www.sec.gov/rules/sro.shtml*); or

[24] *See supra* notes 3 & 4 and accompanying text.

• Send an email to *rule-comments@sec.gov.* Please include File Number SR–FINRA–2023–008 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–FINRA–2023–008. 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 (*https://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 such filing also will be available for inspection and copying at the principal office of FINRA. 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–FINRA–2023–008 and should be submitted on or before May 25, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[25]

Sherry R. Haywood,

Assistant Secretary.

[FR Doc. 2023–09446 Filed 5–3–23; 8:45 am]

BILLING CODE 8011–01–P

[25] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97399]

Order Granting Application by Long-Term Stock Exchange, Inc. for an Exemption, Pursuant to Section 36(a) of the Exchange Act, From the Rule Filing Requirements of Section 19(b) of the Exchange Act With Respect to Certain Rules Incorporated by Reference

April 28, 2023.

The Long-Term Stock Exchange, Inc. (''LTSE'' or ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'' or ''SEC'') an application [1] for an exemption under Section 36(a) of the Securities Exchange Act of 1934 (''Exchange Act'') [2] and Rule 0–12 thereunder [3] from the rule filing requirements of Section 19(b) of the Exchange Act [4] with respect to the rules of the Exchange relating to continuing education. Section 36 of the Exchange Act authorizes the Commission to conditionally or unconditionally exempt any person, security, or transaction, or any class or classes of persons, securities, or transactions, from any provision or provisions of the Exchange Act or of any rule or regulation thereunder, to the extent that such exemption is necessary or appropriate in the public interest, and is consistent with the protection of investors.

LTSE has requested that the Commission grant the Exchange an exemption from the rule filing requirements of Section 19(b) of the Exchange Act for changes to LTSE Rule 2.154 (Continuing Education) effected solely by virtue of changes to Financial Industry Regulatory Authority, Inc. (''FINRA'') Rule 1240 (Continuing Education) that are incorporated by reference into LTSE Rule 2.154. Specifically, the Exchange requests that it be permitted to incorporate by reference a change made to FINRA Rule 1240 without the need for the Exchange to separately file a similar proposed rule change pursuant to Section 19(b) of the Exchange Act. The Exchange believes that this exemption is appropriate because it will promote consistency between LTSE and FINRA rules pertaining to continuing education, which are not trading rules.[5]

As a condition of the requested exemption, LTSE has agreed to provide written notice to its members whenever a change is proposed to FINRA continuing education rules that are incorporated by reference into LTSE's continuing education rules.[6] Such notice would alert the Exchange's members to the FINRA proposed rule change and give them an opportunity to comment on the proposal.[7] The Exchange would similarly inform members in writing when the Commission approves any such proposed rule change.[8]

The Commission has issued exemptions similar to LTSE's request.[9] In granting one such exemption in 2022, the Commission repeated an earlier Commission statement that it would consider similar future exemption requests from other SROs, provided that:

• An SRO wishing to incorporate rules of another SRO by reference has submitted a written request for an order exempting it from the requirement in

[1] *See* Letter from James G. Buckley, Chief Regulatory Officer, LTSE, to Vanessa Countryman, Office of the Secretary, SEC, dated April 19, 2023 (''Exemptive Request'').

[2] 15 U.S.C. 78mm.

[3] 17 CFR 240.0–12 (Commission procedures for filing applications for orders for exemptive relief under Section 36 of the Exchange Act).

[4] 15 U.S.C. 78s(b).

[5] Exemptive Request, *supra* note 1, at pp. 1–2. A self-regulatory organization (''SRO'') wishing to incorporate rules of another SRO by reference may submit a written request for an order exempting it from the requirement in Section 19(b) of the Exchange Act to file proposed rule changes relating to the rules incorporated by reference, if, among other things, the rules to be incorporated are categories of rules (rather than individual rules within a category) that are not trading rules (*e.g.,* the SRO has requested incorporation of rules such as margin, suitability, or arbitration). *See also* Exchange Act Release No. 49260 (Feb. 17, 2004), 69 FR 8500 (Feb. 24, 2004).

[6] LTSE will provide such notice via a posting on the same website location where it posts its own rule filings pursuant to and within the timeframe required by Rule 19b–4(1) under the Exchange Act. The website posting will include a link to the location on FINRA's website where the applicable proposed rule change is posted. Exemptive Request, *supra* note 1, at p. 2, n.7.

[7] Exemptive Request, *supra* note 1, at p. 2.

[8] *Id.*

[9] *See, e.g.,* Exchange Act Release No. 94707 (Apr. 12, 2022), 87 FR 22962 (Apr. 18, 2022) (order granting The Nasdaq Stock Market LLC and five affiliated national securities exchanges an exemption under Section 36(a) of the Exchange Act from the rule filing requirements of Section 19(b) of the Exchange Act with respect to certain of its rules incorporating by reference FINRA rules); Exchange Act Release No. 83040 (Apr. 12, 2018), 83 FR 17198 (Apr. 18, 2018) (order granting MIAX PEARL, LLC, an exemption under Section 36(a) of the Exchange Act from the rule filing requirements of Section 19(b) of the Exchange Act with respect to certain of its rules incorporating by reference rules of the Miami International Securities Exchange, LLC); Exchange Act Release No. 61534 (Feb. 18, 2010), 75 FR 8760 (Feb. 25, 2010) (order granting BATS Exchange, Inc., an exemption under Section 36(a) of the Exchange Act from the rule filing requirements of Section 19(b) of the Exchange Act with respect to certain of its rules incorporating by reference rules of the Chicago Board Options Exchange, Inc., FINRA, and the New York Stock Exchange, LLC).

Section 19(b) of the Exchange Act to file proposed rule changes relating to the rules incorporated by reference, has identified the applicable originating SRO(s), together with the rules it wants to incorporate by reference, and otherwise has complied with the procedural requirements set forth in the Commission's release governing procedures for requesting exemptive orders pursuant to Rule 0–12 under the Exchange Act;

- The incorporating SRO has requested incorporation of categories of rules (rather than individual rules within a category) that are not trading rules (*e.g.,* the SRO has requested incorporation of rules such as margin, suitability, or arbitration); and
- The incorporating SRO has reasonable procedures in place to provide written notice to its members each time a change is proposed to the incorporated rules of another SRO.[10]

The Exchange has satisfied each of these conditions. Moreover, granting LTSE an exemption from the rule filing requirements under Section 19(b) of the Exchange Act will promote efficient use of Commission and Exchange resources by avoiding duplicative rule filings based on simultaneous changes to identical rule text sought by more than one SRO.[11] The Commission therefore finds it appropriate in the public interest, and consistent with the protection of investors, to exempt the Exchange from the rule filing requirements under Section 19(b) of the Exchange Act with respect to the above-described rule the Exchange has incorporated by reference.

Accordingly, it is ordered, pursuant to Section 36 of the Exchange Act,[12] that LTSE is exempt from the rule filing requirements of Section 19(b) of the Exchange Act with respect to a change to LTSE Rule 2.154 resulting solely from changes made to FINRA Rule 1240 without the need for LTSE to separately file, pursuant to Section 19(b) of the Exchange Act, a proposed rule change similar to the one filed by FINRA, provided that LTSE promptly provides written notice to its members whenever a change is proposed to FINRA Rule 1240, and provided that it informs its members in writing when the Commission approves any such proposed change.

[10] *See* Exchange Act Release No. 94707 (Apr. 12, 2022), 87 FR 22962 (Apr. 18, 2022).

[11] *See, e.g.,* 83 FR 17198, 17199 & n.15.

[12] 15 U.S.C. 78mm.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[13]

Sherry R. Haywood,

Assistant Secretary.

[FR Doc. 2023–09445 Filed 5–3–23; 8:45 am]

BILLING CODE 8011–01–P

[13] 17 CFR 200.30–3(a)(76).

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #17899 and #17900; NEVADA Disaster Number NV–00073]

Presidential Declaration of a Major Disaster for Public Assistance Only for the State of Nevada

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the State of Nevada (FEMA–4708–DR), dated 04/27/2023.

Incident: Severe Winter Storms, Flooding, Landslides, and Mudslides.

Incident Period: 03/08/2023 through 03/19/2023.

DATES: Issued on 04/27/2023.

Physical Loan Application Deadline Date: 06/26/2023.

Economic Injury (EIDL) Loan Application Deadline Date: 01/29/2024.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Recovery & Resilience, U.S. Small Business Administration, 409 3rd Street SW, Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the President's major disaster declaration on 04/27/2023, Private Non-Profit organizations that provide essential services of a governmental nature may file disaster loan applications at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Douglas, Eureka, Lincoln, Lyon, Mineral, Storey

The Interest Rates are:

	Percent
For Physical Damage:	
Non-Profit Organizations with Credit Available Elsewhere	2.375
Non-Profit Organizations without Credit Available Elsewhere	2.375
For Economic Injury:	
Non-Profit Organizations without Credit Available Elsewhere	2.375

The number assigned to this disaster for physical damage is 17899 B and for economic injury is 17900 0.

(Catalog of Federal Domestic Assistance Number 59008)

Francisco Sánchez, Jr.,

Associate Administrator, Office of Disaster Recovery & Resilience.

[FR Doc. 2023–09480 Filed 5–3–23; 8:45 am]

BILLING CODE 8026–09–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #17901 and #17902; FLORIDA Disaster Number FL–00186]

Presidential Declaration of a Major Disaster for the State of Florida

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the Presidential declaration of a major disaster for the State of Florida (FEMA–4709–DR), dated 04/27/2023.

Incident: Severe Storms, Tornadoes, and Flooding.

Incident Period: 04/12/2023 through 04/14/2023.

DATES: Issued on 04/27/2023.

Physical Loan Application Deadline Date: 06/26/2023.

Economic Injury (EIDL) Loan Application Deadline Date: 01/29/2024.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Recovery & Resilience, U.S. Small Business Administration, 409 3rd Street SW, Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the President's major disaster declaration on 04/27/2023, applications for disaster loans may be filed at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties (Physical Damage and Economic Injury Loans): Broward

Contiguous Counties (Economic Injury Loans Only):

Florida: Collier, Hendry, Miami-Dade, Palm Beach.

The Interest Rates are:

	Percent
For Physical Damage:	
Homeowners with Credit Available Elsewhere	4.750
Homeowners without Credit Available Elsewhere	2.375
Businesses with Credit Available Elsewhere	8.000
Businesses without Credit Available Elsewhere	4.000
Non-Profit Organizations with Credit Available Elsewhere	2.375
Non-Profit Organizations without Credit Available Elsewhere	2.375
For Economic Injury:	
Businesses & Small Agricultural Cooperatives without Credit Available Elsewhere	4.000
Non-Profit Organizations without Credit Available Elsewhere	2.375

The number assigned to this disaster for physical damage is 17901 6 and for economic injury is 17902 0.

(Catalog of Federal Domestic Assistance Number 59008)

Francisco Sánchez, Jr.,

Associate Administrator, Office of Disaster Recovery & Resilience.

[FR Doc. 2023–09482 Filed 5–3–23; 8:45 am]

BILLING CODE 8026–09–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #17903 and #17904; FLORIDA Disaster Number FL–00187]

Presidential Declaration of a Major Disaster for Public Assistance Only for the State of Florida

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the State of Florida (FEMA–4709–DR), dated 04/27/2023.

Incident: Severe Storms, Tornadoes, and Flooding.

Incident Period: 04/12/2023 through 04/14/2023.

DATES: Issued on 04/27/2023.

Physical Loan Application Deadline Date: 06/26/2023.

Economic Injury (EIDL) Loan Application Deadline Date: 01/29/2024.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Recovery & Resilience, U.S. Small Business Administration, 409 3rd Street SW, Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the President's major disaster declaration on 04/27/2023, Private Non-Profit organizations that provide essential services of a governmental nature may file disaster loan applications at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Broward

The Interest Rates are:

	Percent
For Physical Damage:	
Non-Profit Organizations with Credit Available Elsewhere	2.375
Non-Profit Organizations without Credit Available Elsewhere	2.375
For Economic Injury:	
Non-Profit Organizations without Credit Available Elsewhere	2.375

The number assigned to this disaster for physical damage is 17903 6 and for economic injury is 17904 0.

(Catalog of Federal Domestic Assistance Number 59008)

Francisco Sánchez, Jr.,

Associate Administrator, Office of Disaster Recovery & Resilience.

[FR Doc. 2023–09483 Filed 5–3–23; 8:45 am]

BILLING CODE 8026–09–P

SURFACE TRANSPORTATION BOARD

Release of Waybill Data

The Surface Transportation Board has received a request from the Lehigh Valley Planning Commission (WB23–29—4/27/23) for permission to use select data from the Board's annual 2021 masked Carload Waybill Sample. A copy of this request may be obtained from the Board's website under docket no. WB23–29.

The waybill sample contains confidential railroad and shipper data; therefore, if any parties object to these requests, they should file their objections with the Director of the Board's Office of Economics within 14 calendar days of the date of this notice. The rules for release of waybill data are codified at 49 CFR 1244.9.

Contact: Alexander Dusenberry, (202) 245–0319

Tammy Lowery,

Clearance Clerk.

[FR Doc. 2023–09500 Filed 5–3–23; 8:45 am]

BILLING CODE 4915–01–P

DEPARTMENT OF THE TREASURY

Periodic Meeting of the Department of the Treasury Tribal Advisory Committee

AGENCY: Department of the Treasury.

ACTION: Notice of meeting.

SUMMARY: This notice announces that the Department of the Treasury Tribal Advisory Committee (TTAC) will convene a public meeting from 1:00 p.m.–4:00 p.m. Eastern Time on Wednesday, June 14, 2023. The meeting will be held in person at the Treasury Building in Washington, DC. The meeting is open to the public.

DATES: The meeting will be held on Wednesday, June 14, 2023, from 1:00 p.m.–4:00 p.m. Eastern Time.

ADDRESSES: Please visit *https://events.treasury.gov/s/event-template/a2m3d0000000f7PAAQ* to register for the Wednesday, June 14, 2023, public meeting. When registering for the public meeting, you will be asked to provide your name, title, and organizational affiliation and whether you wish to make public comments. Those wishing to make public comments at the public meeting should register no later than three business days before the public meeting. Written comments must be received 7 calendar days before the public meeting in order to be considered during the public meeting. Written comments can be emailed to *TTAC@treasury.gov.* If you have questions regarding the public meeting, please email *TTAC@treasury.gov.*

If you require a reasonable accommodation, please contact the Departmental Offices Reasonable Accommodations Coordinator at *ReasonableAccommodationRequests@treasury.gov.* If requesting a sign language interpreter, please make sure your request to the Reasonable Accommodations Coordinator is made at least (5) five days prior to the event if at all possible.

FOR FURTHER INFORMATION CONTACT: Krishna P. Vallabhaneni, Designated Federal Officer, by emailing *TTAC@treasury.gov* (preferred) or calling (202)–622–2000 (not a toll-free number).

SUPPLEMENTARY INFORMATION:

Background

Section 3 of the Tribal General Welfare Exclusion Act of 2014, Public Law 113–68, 128 Stat. 1883, enacted on September 26, 2014 (TGWEA), directs the Secretary of the Treasury (Secretary) to establish a seven-member Tribal Advisory Committee to advise the Secretary on matters related to the taxation of Indians, the training of Internal Revenue Service field agents, and the provision of training and technical assistance to Native American financial officers.

Pursuant to section 3 of the TGWEA and in accordance with the provisions of the Federal Advisory Committee Act (FACA), 5 U.S.C. 1001 *et seq.,* the TTAC was established on February 10, 2015, as the ''U.S. Department of the Treasury Tribal Advisory Committee.'' The TTAC's Charter provides that it shall operate under the provisions of the FACA and shall advise and report to the Secretary on:

(1) Matters related to the taxation of Indians;

(2) The establishment of training and education for internal revenue field agents who administer and enforce internal revenue laws with respect to Indian tribes of Federal Indian law and the Federal Government's unique legal treaty and trust relationship with Indian tribal governments; and

(3) The establishment of training of such internal revenue field agents, and provisions of training and technical assistance to tribal financial officers, about implementation of the TGWEA and any amendments.

Eleventh Periodic Meeting

In accordance with section 10(a)(2) of the FACA and implementing regulations at 41 CFR 102–3.150, Krishna P. Vallabhaneni, the Designated Federal Officer of the TTAC, has ordered publication of this notice to inform the public that the TTAC will convene its eleventh periodic meeting on Wednesday, June 14, 2023, from 1:00 p.m.–4:00 p.m. Eastern Time.

Summary of Agenda and Topics To Be Discussed

During this meeting, the TTAC members will provide updates on the work of the TTAC's three subcommittees, hear comments from the public, and take other actions necessary to fulfill the TTAC's mandate.

Public Comments

Members of the public wishing to comment on the business of the TTAC are invited to submit written comments by emailing *TTAC@treasury.gov.* Comments are requested no later than 7 calendar days before a public meeting in order to be considered by the TTAC at that public meeting.

The Department of the Treasury will post all comments received on its website (*https://www.treasury.gov/resource-center/economic-policy/tribal-policy/Pages/Tribal-Policy.aspx*) without change, including any business or personal information provided such as names, addresses, email addresses, or telephone numbers. The Department of the Treasury will also make these comments available for public inspection and copying in the Department of the Treasury's Library, 720 Madison Place NW, Room 1020, Washington, DC 20220, on official business days between the hours of 10:00 a.m. and 5:00 p.m. Eastern Time. You can make an appointment to inspect statements by telephoning (202) 622–2000. All statements received, including attachments and other supporting materials, are part of the public record and subject to public disclosure. You should submit only information that you wish to make available publicly.

Krishna P. Vallabhaneni,

Tax Legislative Counsel and Designated Federal Officer.

[FR Doc. 2023–09504 Filed 5–3–23; 8:45 am]

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DEPARTMENT OF VETERANS AFFAIRS

Advisory Committee on Structural Safety of Department of Veterans Affairs Facilities, Notice of Meeting

The Department of Veterans Affairs (VA) gives notice under Federal Advisory Committee Act, 5 U.S.C. ch. 10, that a meeting of the Advisory Committee on Structural Safety of Department of Veterans Affairs Facilities will be held on May 16–18, 2023. The meeting sessions will take place at VA Caribbean Healthcare System, 10 Calle Casia (Administration Building 40, Room 2M230), San Juan, Puerto Rico 00921. The meeting sessions will begin and end as follows:

Dates	Times
May 16, 2023	9:00 a.m. to 5:00 p.m. Atlantic Standard Time (AST).
May 17, 2023	9:00 a.m. to 5:00 p.m. AST.
May 18, 2023	9:00 a.m. to 5:00 p.m. AST.

The meeting sessions are open to the public.

The purpose of the Committee is to advise the Secretary of Veterans Affairs on matters of structural safety in the construction and remodeling of VA facilities and to recommend standards for use by VA in the construction and alteration of its facilities.

On May 16 through May 18, the meeting will be a hybrid, held in-person and the Committee will receive appropriate briefings and presentations on current seismic, natural hazards, and fire safety issues that are particularly relevant to facilities owned and leased by the Department. The Committee will also discuss appropriate structural and fire safety recommendations for inclusion in VA's construction standards.

No time will be allocated for receiving oral presentations from the public. However, the Committee will accept written comments. Comments should be emailed to Donald Myers, Director, Facilities Standards Service, Office of Construction & Facilities Management (003C2B), Department of Veterans Affairs, at *donald.myers@va.gov.* In the communication, writers must identify themselves and state the organization, association, or person(s) they represent. For any members of the public that wish to attend virtually, they may use the Microsoft Teams link or call in with the phone number and Phone Conference ID below: *https://teams.microsoft.com/l/meetup-join/19%3ameeting_NDM0NWNjMjQtMDIzNC00YmVlLWJhYzYtZjM1MzNkZjRmNjU4%40thread.v2/0?context=%7b%22Tid%22%3a%22e95f1b23-abaf-45ee-821d-b7ab251ab3bf%22%2c%22Oid%22%3a%22d2eb6490-e84d-4737-b9ce-b5664e018fd6%22%7d,* Meeting ID: 283 180 861 958, Passcode: q3gSdL, or to join by phone (audio only): +1 872–701–0185, Phone Conference ID: 913 918 924#.

Those seeking additional information or wishing to attend should contact Mr. Myers at the email address noted above or by phone at 202–632–5388.

Dated: May 1, 2023.

Jelessa M. Burney,

Federal Advisory Committee Management Officer.

[FR Doc. 2023–09530 Filed 5–3–23; 8:45 am]

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FEDERAL REGISTER

Vol. 88 Thursday,

No. 86 May 4, 2023

Part II

Department of Commerce

National Oceanic and Atmospheric Administration

50 CFR Part 217

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Coastal Virginia Offshore Wind Commercial Project Offshore of Virginia; Proposed Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 217

[Docket No. 230424–0110]

RIN 0648–BL74

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Coastal Virginia Offshore Wind Commercial Project Offshore of Virginia

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; proposed letter of authorization; request for comments.

SUMMARY: NMFS has received a request from the Virginia Electric and Power Company, doing business as Dominion Energy Virginia (Dominion Energy), for Incidental Take Regulations (ITR) and an associated Letter of Authorization (LOA) pursuant to the Marine Mammal Protection Act (MMPA). The requested regulations would govern the authorization of take, by Level A harassment and Level B harassment, of small numbers of marine mammals over the course of 5 years (2024–2029) incidental to construction of the Coastal Virginia Offshore Wind Commercial (CVOW–C) project offshore of Virginia within the Bureau of Ocean Energy Management (BOEM) Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Lease Area OCS–A 0483 (Lease Area) and associated Export Cable Routes. Project activities likely to result in incidental take include pile driving activities (impact and vibratory) and site assessment surveys using high-resolution geophysical (HRG) equipment. NMFS requests comments on its proposed rule. NMFS will consider public comments prior to making any final decision on the promulgation of the requested ITR and issuance of the LOA; agency responses to public comments will be summarized in the final notice of our decision. The proposed regulations, if promulgated, would be effective February 5, 2024, through February 4, 2029.

DATES: Comments and information must be received no later than June 5, 2023.

ADDRESSES: Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *www.regulations.gov* and enter NOAA–NMFS–2023–0030 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* without change. All personal identifying information (*e.g.,* name, address), 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).

FOR FURTHER INFORMATION CONTACT: Kelsey Potlock, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Availability

A copy of Dominion Energy's Incidental Take Authorization (ITA) application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable*. In case of problems accessing these documents, please call the contact listed above (see **FOR FURTHER INFORMATION CONTACT**).

Purpose and Need for Regulatory Action

This proposed rule, if promulgated, would provide a framework under the authority of the MMPA (16 U.S.C. 1361 *et seq.*) to allow for the authorization of take of marine mammals incidental to construction of the CVOW–C project within the Lease Area and along export cable corridors to landfall locations in Virginia. NMFS received a request from Dominion Energy for 5-year regulations and a LOA that would authorize take of individuals of 21 species of marine mammals (seven species by Level A harassment and Level B harassment and 21 species by Level B harassment only), comprising 22 stocks, incidental to Dominion Energy's construction activities. No mortality or serious injury is anticipated or proposed for authorization. Please see below for definitions of harassment. Please see the *Legal Authority for the Proposed Action* section below for definitions of harassment, serious injury, and incidental take.

Legal Authority for the Proposed Action

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made, regulations are promulgated (when applicable), and public notice and an opportunity for public comment are provided.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other ''means of effecting the least practicable adverse impact'' on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, the availability of the species or stocks for taking for certain subsistence uses (referred to as ''mitigation''), and requirements pertaining to the mitigation, monitoring and reporting of the takings are set forth.

As noted above, no serious injury or mortality is anticipated or proposed for authorization in this proposed rule. Relevant definitions of MMPA statutory and regulatory terms are included below:

- *Take*—to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal (16 U.S.C. 1362, 50 CFR 216.3);
- *Incidental taking*—an accidental taking. This does not mean that the taking is unexpected, but rather it includes those takings that are infrequent, unavoidable or accidental (see 50 CFR 216.103);
- *Serious Injury*—any injury that will likely result in mortality (50 CFR 216.3);
- *Level A harassment*—any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild (16 U.S.C. 1362); and
- *Level B harassment*—any act of pursuit, torment, or annoyance which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (16 U.S.C. 1362).

Section 101(a)(5)(A) of the MMPA and the implementing regulations at 50 CFR part 216, subpart I, provide the legal basis for proposing and, if appropriate, issuing 5-year regulations and associated LOA. This proposed rule also establishes required mitigation, monitoring, and reporting requirements for Dominion Energy's proposed activities.

Summary of Major Provisions Within the Proposed Rule

The major provisions of this proposed rule include:

- Authorize take of marine mammals by Level A harassment and/or Level B harassment. No mortality or serious injury of any marine mammal is proposed to be authorized;
- Establish a seasonal moratorium on pile driving during the months of highest North Atlantic right whale (*Eubalaena glacialis*) presence in the project area (November 1st–April 30th);
- Require both visual and passive acoustic monitoring by trained, NOAA Fisheries-approved Protected Species Observers (PSOs) and Passive Acoustic Monitoring (PAM) operators before, during, and after the in-water construction activities;
- Require training for all Dominion Energy personnel that would clearly articulate all relevant responsibilities, communication procedures, marine mammal monitoring and mitigation protocols, reporting protocols, safety, operational procedures, and requirements of the ITA and ensure that all requirements are clearly understood by all participating parties;
- Require the use of sound attenuation device(s) during all vibratory and impact pile driving of wind turbine generators (WTG) and offshore substations (OSS) foundation piles to reduce noise levels;
- Delay the start of pile driving if a North Atlantic right whale is observed at any distance by the PSO on the pile driving or dedicated PSO vessel;
- Delay the start of pile driving if other marine mammals are observed entering or within their respective clearance zones;
- Shut down pile driving (if feasible) if a North Atlantic right whale is observed or if other marine mammals enter their respective shut down zones;
- Conduct sound field verification monitoring during a minimum of three WTGs and all three OSS foundation installation events to measure *in situ* noise levels for comparison against the model results;
- Implement soft starts during impact pile driving and using the least hammer energy possible;
- Implement ramp-up for high-resolution geophysical (HRG) site characterization survey equipment prior to operating at full power;
- Implement various vessel strike avoidance measures;
- Increase awareness of North Atlantic right whale presence through monitoring of the appropriate networks and VHF Channel 16, as well as reporting any sightings to the sighting network;
- Implement Best Management Practices (BMPs) during fisheries monitoring research surveys and activities to reduce the risk of marine mammals being considered at-risk or of interacting with deployed gear; and
- Require frequent scheduled and situational reporting including, but not limited to, information regarding activities occurring, marine mammal observations and acoustic detections, and sound field verification monitoring results.

National Environmental Policy Act (NEPA)

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must evaluate the proposed action (*i.e.,* promulgation of regulations and subsequent issuance of a 5-year LOA) and alternatives with respect to potential impacts on the human environment.

Accordingly, NMFS proposes to adopt the BOEM Environmental Impact Statement (EIS), provided our independent evaluation of the document finds that it includes adequate information analyzing the effects of promulgating the proposed regulations and LOA issuance on the human environment. NMFS is a cooperating agency on BOEM's EIS. BOEM's CVOW–C Draft Environmental Impact Statement for Commercial Wind Lease OCS–A 0483 (DEIS), was made available for public comment through a Notice of Availability on December 16, 2022 (87 FR 77135), available at *https://www.boem.gov/renewable-energy/state-activities/CVOW-C.* The DEIS had a 60-day public comment period; the comment period was open from December 16, 2022 to February 14, 2023. Additionally, BOEM held three virtual public hearings on January 25, 2023, January 31, 2023, and February 2, 2023.

Information contained within Dominion Energy's ITA application and this proposed rule collectively provide the environmental information related to these proposed regulations and associated 5-year LOA for public review and comment. NMFS will review all comments submitted in response to this proposed rule prior to concluding our NEPA process or making a final decision on the requested 5-year ITR and associated LOA.

Fixing America's Surface Transportation Act (FAST–41)

This project is covered under Title 41 of the Fixing America's Surface Transportation Act, or ''FAST–41.'' FAST–41 includes a suite of provisions designed to expedite the environmental review for covered infrastructure projects, including enhanced interagency coordination as well as milestone tracking on the public-facing Permitting Dashboard. FAST–41 also places a 2-year limitations period on any judicial claim that challenges the validity of a Federal agency decision to issue or deny an authorization for a FAST–41 covered project (42 U.S.C. 4370m–6(a)(1)(A)).

Dominion Energy's proposed project is listed on the Permitting Dashboard. Milestones and schedules related to the environmental review and permitting for the CVOW–C project can be found at *https://www.permits.performance.gov/permitting-project/coastal-virginia-offshore-wind-commercial-project.*

Summary of Request

On February 16, 2022, NMFS received a request from Dominion Energy for the promulgation of a 5-year ITR and issuance of an associated LOA to take marine mammals incidental to construction activities associated with the CVOW–C project offshore of Virginia in the Lease Area and associated export cable routes. Dominion Energy's request is for the incidental, but not intentional, take of a small number of 21 marine mammal species (comprising 22 total stocks) by Level B harassment and by Level A harassment for seven marine mammal species, comprising 7 stocks. Neither Dominion Energy nor NMFS expects serious injury or mortality to result from the specified activities, and Dominion Energy did not request and NMFS is not proposing to authorize mortality or serious injury of any marine mammals species or stock.

In response to our comments and following extensive information exchanges with NMFS, Dominion Energy submitted a final, revised application on August 5, 2022, that NMFS deemed adequate and complete on August 12, 2022. The final version of the application is available on NMFS' website at *https://www.fisheries.noaa.gov/action/incidental-take-authorization-dominion-*

energy-virginia-construction-coastal-virginia.

On September 15, 2022, NMFS published a notice of receipt (NOR) of the adequate and complete application in the **Federal Register** (87 FR 56634), requesting comments and soliciting information related to Dominion Energy's request during a 30-day public comment period. During the NOR public comment period, NMFS received one public comment letter from another Federal agency (the United States Geological Survey (USGS)) and one public comment letter from an environmental non-government organization (the Southern Environmental Law Center). NMFS has reviewed all submitted material and has taken these into consideration during the drafting of this proposed rule.

In June 2022, Duke University's Marine Spatial Ecology Laboratory released updated habitat-based marine mammal density models (Roberts *et al.,* 2016; Robert and Halpin, 2022). Because Dominion Energy applied marine mammal densities to their analysis in their application, Dominion Energy submitted a final Updated Density and Take Estimation Memo (herein referred to as Updated Density and Take Estimation Memo) on January 10, 2023 that included marine mammal densities and take estimates based on these new models which NMFS posted on our website in May 2023.

In January 2023, BOEM informed NMFS that the proposed activity had changed from what is presented in the adequate and complete MMPA application. Specifically, the changed proposed activity involved the reduction of maximum WTGs built (from 205 to 202 WTGs) as under the original Project Design Envelope (PDE) and the OSSs would be located in the vessel transit routes. Under the 202 build-out, three WTGs would be removed and the three OSSs would be shifted into these WTG positions. However, in late-January 2023, Dominion Energy confirmed that their Preferred Layout of 176 WTGs is the base case for construction, but that they could possibly need up to 7 WTGs re-piled in alternate positions due to unstable sediment conditions, which could necessitate up to 183 independent piling events. WTG positions have been removed from consideration for one or more of the following reasons: impracticable due to foundation technical design risk, shallow gas presence, commercial shipping and navigation risk concerns, erosion risk, and presence of a designated fish haven. Based on the information provided, NMFS carried forward the analysis assuming a total build-out of 176 WTGs plus seven re-piled WTGs (a total of 183 independent piling events for WTGs) and the 3 originally planned OSSs. Due to the significant reduction of turbines from the original proposed action found in the adequate and complete ITA application (reduction of approximately 14 percent), Dominion Energy, in consultation with NMFS, provided an updated proposed action summary, revised exposure estimates, revised take requests, and an updated piling schedule in mid-February 2023 (herein referred to as the Revised Proposed Action Memo). NMFS posted this to our website in May 2023.

NMFS has previously issued six Incidental Harassment Authorizations (IHAs) to Dominion Energy. Two of those IHAs, issued in 2018 (83 FR 39062; August 8, 2018) and 2020 (85 FR 30930, May 21, 2020) supported the development of the Coastal Virginia Offshore Wind project, known as the CVOW Pilot Project (wherein two turbines were constructed). The remaining four IHAs (two of which were modified IHAs) were high resolution site characterization surveys within and around the CVOW–C Lease Area (see 85 FR 55415, September 8, 2020; 85 FR 81879, December 17, 2020 (modified 2020 IHA); 86 FR 21298, April 22, 2021 (modified 2021 IHA); and 87 FR 33730, June 3, 2022).

To date, Dominion Energy has complied with all the requirements (*e.g.,* mitigation, monitoring, and reporting) of the previous IHAs. Information regarding Dominion Energy's take estimates and monitoring results may be found in the Estimated Take section. The monitoring reports can be found on NMFS' website, along with the relevant, previously issued IHAs: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable.*

On August 1, 2022, NMFS announced proposed changes to the existing North Atlantic right whale vessel speed regulations (87 FR 46921; August 1, 2022) to further reduce the likelihood of mortalities and serious injuries to endangered right whales from vessel collisions, which are a leading cause of the species' decline and a primary factor in an ongoing Unusual Mortality Event. Should a final vessel speed rule be issued and become effective during the effective period of this ITR (or any other MMPA incidental take authorization), the authorization holder would be required to comply with any and all applicable requirements contained within the final rule. Specifically, where measures in any final vessel speed rule are more protective or restrictive than those in this or any other MMPA authorization, authorization holders would be required to comply with the requirements of the rule. Alternatively, where measures in this or any other MMPA authorization are more restrictive or protective than those in any final vessel speed rule, the measures in the MMPA authorization would remain in place. The responsibility to comply with the applicable requirements of any vessel speed rule would become effective immediately upon the effective date of any final vessel speed rule and, when notice is published on the effective date, NMFS would also notify Dominion Energy if the measures in the speed rule were to supersede any of the measures in the MMPA authorization such that they were no longer required.

Description of the Specified Activities

Overview

Dominion Energy's CVOW–C project would allow the Commonwealth of Virginia to meet its clean energy goal of achieving 100 percent clean energy by 2045 through the implementation of up to 5,200 megawatts (MW) of offshore wind-generated energy, as established in the Virginia Clean Economy Act (HB 1526/SB 851; *https://lis.virginia.gov/cgi-bin/legp604.exe?201+ful+CHAP1193+hil&201+ful+CHAP1193+hil*). To achieve this, Dominion Energy has proposed to construct and operate CVOW–C in state and Federal waters of the Atlantic Ocean in the Lease Area that is capable of producing between 2,500 and 3,000 MW of renewable energy and would be the largest offshore wind project in the United States at the time of its construction.

Dominion Energy's precursor pilot project (*i.e.,* CVOW Pilot Project) was a 12 MW, two-turbine test project and the first to be installed in Federal waters. Designed as a research/test project, the two turbines associated with the CVOW Pilot Project became operational in October 2020 approximately 27 miles (mi; 43.45 kilometers (km)) off of Virginia Beach, Virginia. Information on this Pilot Project was used to inform the proposed CVOW–C project. More information on the Pilot Project can be found on BOEM's website (*https://www.boem.gov/renewable-energy/state-activities/coastal-virginia-offshore-wind-project-cvow*) and in the IHA authorized by NMFS in May 2020 for BOEM Lease Area OCS–A–0497 (*https://www.fisheries.noaa.gov/action/incidental-take-authorization-dominion-energy-virginia-offshore-wind-construction-activities*).

CVOW–C would consist of several different types of permanent offshore infrastructure, including up to 176 wind turbine generators (WTGs; *e.g.,* such as the Siemens Gamesa SG–14–222 DD 14–MW model with power boost technology potentially allowing up to 14.7–MW, equating to a total of 2,587.2–MW for full build-out), three offshore substations (OSS), and inter-array and substation interconnect cables. Dominion Energy plans to install WTG and OSS foundations via a joint-installation approach using both vibratory and impact pile driving. Dominion Energy would also conduct the following supporting activities: temporarily install and remove, by vibratory pile driving, up to nine cofferdams to connect the offshore export cables to onshore facilities; temporarily install and remove, by impact pile driving and a pipe thruster, respectively, up to 108 goal posts (12 goal posts for each of nine Direct Pipe locations) to guide casing pipes; permanently install scour protection around WTG and OSS foundations; permanently install and perform trenching, laying, and burial activities associated with the export cables from the OSSs to shore-based switching and sub-stations and WTG inter-array cables; annually perform, using active acoustic sources with frequencies of less than 180 kilohertz (kHz), high-resolution vessel-based site characterization geophysical (HRG) surveys; and intermittently perform, via a modified dredge, and a pot-based monitoring approach, fishery monitoring surveys to enhance existing data for specific benthic and pelagic species of concern. Vessels would transit within the project area and between ports and the wind farm to transport crew, supplies, and materials to support construction activities. All offshore cables would be connected to onshore export cables at the sea-to-shore transition point via trenchless installation (*i.e.,* underground tunneling utilizing micro tunnel boring installation methodologies) in a parking lot found west of the firing range at the State Military Reservation located in Virginia Beach, Virginia. From the sea-to-shore transition point, onshore underground export cables are then connected in series to switching stations/substations, overhead transmission lines, and ultimately to the grid connection.

Marine mammals exposed to elevated noise levels during impact and vibratory pile driving and site characterization surveys may be taken, by Level A harassment and/or Level B harassment, depending on the specified activity.

Dates and Duration

Dominion Energy anticipates that activities with the potential to result in incidental take of marine mammals would occur throughout all five years of the proposed regulations which, if issued, would be effective from February 5, 2024, through February 4, 2029. Based on Dominion Energy's proposed schedule, the installation of all permanent structures would be completed by the end of October 2025. More specifically, the installation of WTG foundations is expected to occur between May 1st–October 31st of 2024 and 2025, over approximately 12 months (6 months within each year). OSS jacket foundations using pin piles would be installed between May 1st–October 31st, 2024 and 2025. However, delays due to weather or other unanticipated and unforeseen events may require Dominion Energy to install some foundations in 2026. If this occurs, foundation installation would occur between the predetermined pile driving seasonal window (May 1st–October 31st in 2026) and occur over 6 months. However, as this would represent a shift in the schedule, rather than additional piles being installed, the proposed activities would still maintain the same amount of take proposed for authorization, both annual maximum and five-year total. The temporary structures used for nearshore cable landfall construction (*i.e.,* temporary cofferdams and temporary goal posts) would be installed and subsequently removed between May 1st–October 31st, 2024. Lastly, Dominion Energy anticipates HRG survey activities using boomers, sparker, and Compressed High-Intensity Radiated Pulses (CHIRPs) to occur annually and across the five-year period. Up to 65 days of surveys are planned in 2024, 249 are planned in 2025, 58 are planned in 2026, and 368 survey days are planned annually in each of 2027 and 2028. No surveys are planned to occur in 2029. These surveys may occur across the entire CVOW–C Lease Area and Export Cable Routes and may take place at any time of year.

Dominion Energy has provided a schedule for all of their proposed construction activities (Table 1). Based on the schedule presented, no activities (installation, removal, or HRG surveys) are planned to occur in 2029, even though part of this year would fall within the five-year effective period of the proposed regulations. This table also presents a breakdown of the timing and durations of the activities proposed to occur during the construction and operation of the CVOW–C project.

TABLE 1—CVOW–C'S CONSTRUCTION AND OPERATIONS SCHEDULE DURING THE EFFECTIVE PERIOD OF THE LOA [a]

Project activity	Expected timing	Expected duration (approximate)
Scour Protection Pre-Installation	Q2 through Q4 of 2024	9 months.
	Q2 through Q4 of 2025	9 months.
WTG Foundation Installation [b e]	Q2 through Q4 of 2024	6 months.
	Q2 through Q4 of 2025	6 months.
Scour Protection Post-installation	Q2 through Q4 of 2024	9 months.
	Q2 through Q4 of 2025	9 months.
OSS Foundation Installation [b e]	Q2 through Q4 of 2024	6 months.
	Q2 through Q4 of 2025	6 months.
Cable Landfall Construction (Goal Posts and Cofferdams) [h]	Q1 through Q4 of 2024	6 months.
HRG Surveys [c d]	Q1 2024 through Q4 2028	Any time of year.
Site Preparation	Q1 2024 through Q2 2024	6 months.
Inter-array Cable Installation	Q2 2025 through Q4 2026	19 months.
Export Cable Installation	Q3 2024 through Q3 2025	14 months.
Fishery Monitoring Surveys: [f g]		

TABLE 1—CVOW–C'S CONSTRUCTION AND OPERATIONS SCHEDULE DURING THE EFFECTIVE PERIOD OF THE LOA [a]—Continued

Project activity	Expected timing	Expected duration (approximate)
Surf Clam	Q2 2023	1 week.
Whelk	Q2 2023 through Q1 2025	24 months.
Black Sea Bass	Q2 2023 through Q1 2025	24 months.

Note: "Q1, Q2, Q3, and Q4" each refer to a quarter of the year, starting in January and comprising 3 months each. Therefore, Q1 represents January through March, Q2 represents April through June, Q3 represents July through September, and Q4 represents October through December.

[a] While the effective period of the proposed regulations would extend a few months into 2029, no activities are proposed to occur in 2029 by Dominion Energy so these were not included in this table.

[b] Activities would only occur between May 1st through October 31st annually.

[c] Activities would begin in February 2024, upon the issuance of a LOA, and continue through construction and post-construction.

[d] For HRG surveys, Dominion Energy anticipates up to 65 days of surveys would occur during the pre-construction period (2024), up to 307 days during the primary construction years (2025 and 2026), and up to 736 days would be needed during the post-construction years (2027 and 2028) with a 50/50 split of 368 days each year. No surveys are planned for 2029.

[e] Dominion Energy anticipates that all WTGs and OSS foundations will be installed by October 31st, 2025; however, unanticipated delays may require some foundation pile driving to occur in 2026.

[f] Some fishery monitoring survey activities are planned prior to February 2024 but are not included here as they would not occur during the effective dates of the ITR and LOA.

[g] Dates displayed here are for field work, as that would be the only component that could impact marine mammals.

[h] Although cable landfall activities are anticipated to occur over 9–12 months total, activities capable of harassing marine mammals would only occur for the specified duration described here as other activities necessary for landfall construction (*i.e.,* area preparation, material transportation, etc.) would also occur.

Dominion Energy anticipates that the first 40 WTGs would become operational in 2025, after foundation installation is completed and after all necessary components (such as array cables, OSSs, export cables routes, and onshore substations) are installed. Up to 120 additional WTGs would be commissioned/operational in 2026. Dominion Energy anticipates that all turbines would be commissioned by 2027, with the last 16 being operational that year.

Specific Geographic Region

Dominion Energy would construct the CVOW–C project in Federal and state waters offshore of Virginia within the BOEM Lease Area OCS–A 0483 and associated Export Cable Routes (Figure 1). The Lease Area covers approximately 456.5 km^2 (112,799 acres) and is located approximately 27 mi (43.5 km) east of Virginia Beach, Virginia. The water depths in the Lease Area range from 19.9 m to 38.1 m (65 to 125 ft) while water depths along the Export Cable Routes range from 0 to 28 m (0 to 92 ft). Cable landfall construction work would be conducted in shallow water (temporary cofferdams would be in water 3.3 m (10.83 ft) deep, and the goal posts would be at depths of 22.9 m (75 ft)). Sea surface temperatures range from 32 to 88 degrees Fahrenheit (°F; 0 to 31 degrees Celsius (°C)) while the depth-averaged annual water temperature is 56.39 °F (13.55 °C) (NOAA n.d.B). Cables would come ashore adjacent to the western boundary of the State Military Reservation firing range in Virginia Beach.

Dominion Energy's specified activities would occur along a portion of the Mid-North Atlantic continental shelf that experiences various concurrent processes that shape the overall geology of the region. These processes include glacio-eustatic sea level change (*i.e.,* a change in sea level due to the uptake or release of water from glaciers and polar ice), drainage from Chesapeake Bay, and storm-related effects to sedimentation. The basin structure in which the CVOW–C project area is located, the Baltimore Canyon Trough, is oriented northeast to southwest and consists of a wedge of sediments that thicken to the east (Dominion Energy, 2023).

The Mid-Atlantic Bight, where the CVOW–C project would be located, spans from Cape Hatteras, North Carolina to Cape Cod, Massachusetts and continues to extend into the west Atlantic to the 100-m isobath. The oceanographic conditions along the Mid-Atlantic Bight are comparable to the conditions found along the Mid-Atlantic East Coast, where summer months are warmer and winter months are milder. The area is known for its high levels of primary productivity, specifically in the nearshore and estuarine regions, where coastal phytoplankton tend to bloom in the winter and summer. Given the proximity to the continental shelf, this area forms an important habitat for various benthic and fish species, as well as forms important habitat for fin whales, humpback whales, North Atlantic right whales, and other large whales as they migrate through the area. The CVOW–C project area is located within the Mid-Atlantic Bight and relatively flat with ''very gentle to gentle slopes'', as described by the BOEM classification found in the CVOW–C Construction and Operations Plan (COP) (Dominion Energy, 2023). In the Export Cable Routes, the seafloor slopes are less than 1 degree (''very gentle'' based again on the BOEM classification; Dominion Energy, 2023). The most significant slopes can be found on the flanks of morphological features and other topographic highs where the seabed gradient ranges up to 4 degrees (Dominion Energy, 2023). The most prominent seabed features with the project area are pronounced sand ridges that create a ridge and swale topography. In the northeastern portion of the project area, the heights of the sand ridges are lower, topographic variation across the ridges is reduced, seafloor bathymetry is deeper, and water depths are less variable.

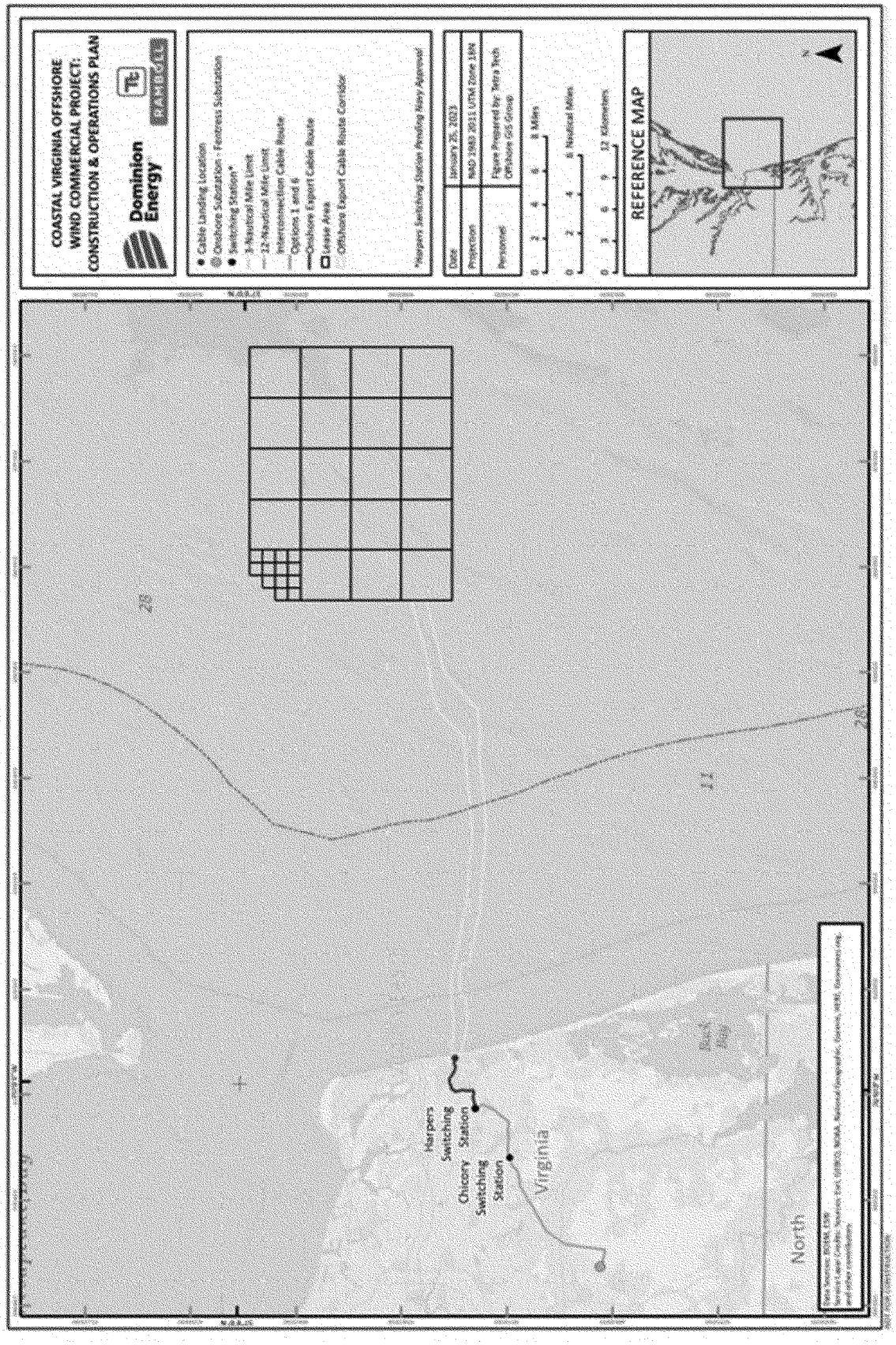
A complete mapping of the seabed has identified a low number of boulders present on the seafloor (Dominion Energy, 2023). Only 10 boulders and 110 seabed targets interpreted as possible boulders have sizes greater than 1 m (3 ft). No patterns were identified in the location of boulders across the Lease Area and Export Cable Routes.

The seafloor in the CVOW–C project area is dynamic and changes over time due to current, tidal flows, and wave conditions. The benthic habitat of the project area contains a variety of seafloor substrates, physical features, and associated benthic organisms. The soft bottom sediments in the project area are reflective of the rest of the Mid-Atlantic Bight region, and characterized

by fine sand as well as gravel and silt/sand mixes (Milliman, 1972; Steimle and Zetlin, 2000). Underwater soils in the area are known to be soft, with two specific soils noted that could increase the risk of pile run (Dominion Energy, 2023). The presence of bedforms, mobile sediments, and potential for scouring exist in the project area (Dominion Energy, 2023). However, the paleochannel strata is not considered a weak layer due to stiffness and strength values being within normal ranges and as such, is not considered a hazard to cable or foundation installation (Dominion Energy, 2023). The dominant benthic fauna within the Lease Area are annelids, mollusks, and arthropods (Dominion Energy, 2023).

Additional information on the underwater environment's physical resources can be found in CVOW–C's COP (Dominion Energy, 2023) available at *https://www.boem.gov/renewable-energy/state-activities/coastal-virginia-offshore-wind-project-construction-and*.

BILLING CODE 3510–22–P


COASTAL VIRGINIA OFFSHORE WIND COMMERCIAL PROJECT: CONSTRUCTION & OPERATIONS PLAN
Dominion Energy
Cable Landing Location
Onshore Substation - Fentress Substation
Switching Station*
3-Nautical Mile Limit
12-Nautical Mile Limit
Interconnection Cable Route
Options 1 and 6
Onshore Export Cable Route
Lease Area
Offshore Export Cable Route Corridor
*Harpers Switching Station Pending Navy Approval
Date
January 25, 2023
Projection
NAD 1983 2011 UTM Zone 18N
Prepared
Figure Prepared by: Tetra Tech Offshore GIS Group
0 2 4 6 8 Miles
0 2 4 6 8 Nautical Miles
0 3 6 9 12 Kilometers
REFERENCE MAP
Harpers Switching Station
Chicory Switching Station
Virginia
North
Back Bay
29
26
27

BILLING CODE 3510–22–C

Figure 1—The CVOW–C Project Area

Detailed Description of Specified Activities

Below, we provide detailed descriptions of Dominion Energy's activities, explicitly noting those that are anticipated to result in the take of marine mammals and for which incidental take authorization is requested. Additionally, a brief explanation is provided for those activities that are not expected to result in the take of marine mammals.

WTG and OSS Foundations

Dominion Energy proposes to install up to 176 WTGs on monopile foundations and 3 OSSs on jacket foundations. They anticipate all WTG foundations could be installed between May 1st through October 31st in 2024 and 2025, over the course of six months in each year. However, it may be possible that monopile installation associated with the WTG foundations would need to continue into a third year (2026), depending on construction logistics and local and environmental conditions that may influence Dominion Energy's ability to maintain the planned construction schedule. If this is determined to be necessary, WTG foundations would only be installed between May 1st through September 30th of 2026. However, this schedule shift would not change NMFS' proposed determinations as the total number of piles would remain the same. While this shift is unlikely to occur, the proposed rulemaking does retain flexibility in addressing unforeseen circumstances. However, all foundations would be installed during the effective period of this proposed rule, if issued. OSS jacket foundations would most likely be installed in August 2024; however, they could be installed anytime between May 1st through October 31st. For both types of foundations, Dominion Energy has committed to not installing from November 1st through April 30th, annually.

A WTG monopile foundation typically consists of a single steel tubular section, with several sections of rolled steel plate welded together. Each monopile would have a maximum diameter tapering from 7.5 m (24.6 ft) at the top to 9.5 m (31 ft) at the seafloor (collectively referred to as a 9.5/7.5-m monopile). WTGs would be spaced approximately 0.75 nautical miles (nm; 1.39 km) in an east-west direction and 0.93 nm (1.72 km) in a north-south direction and will have an average penetration depth of 42 m (138 ft; between 30 m and 46 m per Attachment Z–3 of Appendix A in Dominion Energy's ITA application). Although only 176 WTGs would be installed, seven foundations may need to be re-installed at a different location; hence Dominion Energy has accounted for up to 183 WTG individual piling events in its analysis, which we have carried forward with in this proposed rule.

Each OSS installed by Dominion Energy would be supported by a jacket foundation. A piled jacket foundation is formed by a steel lattice construction (comprising tubular steel members and welded joints) secured to the seabed by means of hollow steel pin piles attached to the jacket. Each jacket foundation would consist of up to four pin piles. In total, Dominion Energy would install up to 3 OSSs for a total of 12 pin piles. Up to two pin piles would be installed per day. Pin piles will have a maximum diameter of 2.8 m (9.2 ft) each and will be installed vertically. The maximum penetration depth of each pin pile would be 82 m (269 ft).

Given the project area's soil conditions, the installation of both WTG monopile foundations and OSS jacket foundations would necessitate the use of both vibratory and impact pile driving to avoid pile run (also known as ''punch-through''). Pile run can occur when a monopile or a pin pile rapidly penetrates in an uncontrolled manner through a weak layer of soil, due to the soil resistance being lower than the weight of the pile and hammer (transferring impulsive energy to the pile). Pile runs can occur instantaneously and through a depth of meters to dozens of meters. A pile run incident can have severe negative consequences, both for the safety of personnel aboard the installation vessel and significant risk of damage to equipment. To mitigate this risk, Dominion Energy would first perform vibratory hammering, which would allow for a more controllable installation process when installing piles in soft sediments as the vibrohammer is directly in contact with the pile (see Figures 2 through 5 in Dominion Energy's ITA application), as opposed to installation using the impact hammer (see Figures 6 and 7 in Dominion Energy's ITA application). Once the pile run risk depth has been passed, the method of installation would transition from a vibratory hammer to an impact hammer. It is anticipated the transition from a vibratory hammer to an impact hammer would require approximately 1.2 hours wherein no pile driving would occur. Once installation of the monopile and/or pin pile is complete, the pile driving vessel would move to the next installation location. While Dominion Energy states that not all piles will require the use of the vibrohammer in conjunction with the impact hammer, it was considered more conservative to analyze all installed piles using this dual approach as it is not yet known how many would require the dual installation method. No concurrent pile driving at multiple locations would occur.

Per monopile, use of the vibrohammer is estimated to occur for approximately 30 to 60 minutes (depending on if the pile uses a standard driving or hard-to-drive scenario, respectively) to firmly stabilize the foundation pile. A 72 minute (1.2 hour) pause to allow for the vibratory hammer to be exchanged with an impact hammer would occur. Then, the impact hammer would be used for approximately three hours (constituting approximately 3 hours for 3,240–3,720 total hammer strikes, with more strikes needed if the pile is considered difficult to install). A joint standard and hard-to-drive scenario (Scenario 3) for the installation of up to two monopiles in a single day may require up to 90 minutes of vibratory pile driving followed by up to 6,960 hammer strikes. In all situations, the impact hammer would drive the pile until it reaches its target embedment depth (approximately 42 m (138 ft) for monopiles). The three possible WTG monopile installation scenarios are laid out in Table 2 below:

TABLE 2—WTG MONOPILE SCENARIOS WITH SCENARIO-SPECIFIC INSTALLATION CHARACTERISTICS

Installation scenario	Number of WTG monopiles installed	Maximum vibratory hammer duration (minutes)	Maximum impact hammer strikes	Impact hammer energy (kJ)
Scenario 1 (Standard)	1	60	3,240	4,000
Scenario 2 (Hard-to-drive)	1	30	3,720	4,000

TABLE 2—WTG MONOPILE SCENARIOS WITH SCENARIO-SPECIFIC INSTALLATION CHARACTERISTICS—Continued

Installation scenario	Number of WTG monopiles installed	Maximum vibratory hammer duration (minutes)	Maximum impact hammer strikes	Impact hammer energy (kJ)
Scenario 3 (Standard and Hard-to-drive)	2	90	6,960	4,000

For pin piles, vibratory pile driving is anticipated to require approximately 120 minutes (2 hours), a 72 minute (1.2 hours) pause in activities, and then continue with impact pile driving using a hammer energy up to 3,000 kJ, resulting in a total estimate of 15,210 hammer strikes. As with WTG foundations, the impact hammer would drive the pin pile until it reaches its target embedment depth (approximately 82 m (269 ft) for pin piles). A maximum of two pin piles would be driven per day. Each OSS jacket foundation would take approximately five days to install with a total of 30 days needed for the completion of all three OSSs (n=3) with all of their pin piles (n=12). This 30-day period does include periods of non-pile driving time where other activities related to the jacket foundations may be installed.

The current construction schedule assumes foundation installation would occur in 2024 and 2025; however, as previously discussed in the Dates and Duration section, limited installation of WTGs may need to be installed in 2026 if the project falls off of the construction schedule. Given an estimated installation schedule, Dominion Energy expects that up to 95 monopile foundations would be installed in 2024 and up to 88 monopiles would be installed in 2025. If pile driving must occur in this 3rd year, installation would only occur across a five month period (May 1st through September 30th, 2026). All WTG and OSS foundation installation would occur during daylight hours only. The only exception would be if, for safety reasons, ceasing pile driving activities would compromise both the health of humans and the environment or if ceasing the pile driving would cause instability and integrity concerns on the project. In most cases, one pile would be installed per day, although two may be installed during some months. No concurrent pile driving is planned or proposed to occur. The same exception described above for WTG foundations applies to OSS foundations where integrity or safety concerns may necessitate the pile to be finished after sunset. The proposed WTG and OSS pile driving schedule can be found in Table 3 below that describes the construction schedule on both an annual and monthly basis.

TABLE 3—PROPOSED PILE DRIVING SCHEDULE FOR THE CVOW–C PROJECT OF 176 WTGS AND 3 OSSS, PLUS 7 POSSIBLE WTG RE-PILING EVENTS

Year [b]	Month	Total proposed number of piles	Number of hard-to-drive piles	Number of standard piles	Days when two monopiles may be installed per day
2024	May	18	5	13	1
	June	25	6	19	6
	July	26	7	19	6
	August	2 monopiles; 12 pin piles	1	1	1
	September	13	3	10	0
	October	11	1	10	0
2024 Annual Total		95 monopiles; 12 pin piles [a]	23	72	14
2025	May	16	6	10	1
	June	22	8	14	6
	July	24	8	16	6
	August	20	6	14	6
	September	5	2	3	0
	October	1	1	0	0
2025 Annual Total		88 monopiles	31	57	19

[a] Included only if seven re-piling events are necessary.
[b] While Dominion Energy plans for all pile driving to be completed by the end of the 2025 piling period (end of October 2025), unforeseen circumstances may necessitate that piling would need to continue into 2026. While not planned or anticipated, the proposed rule would allow for flexibility in shifting certain activities with the understanding that the maximum estimated takes would not exceed the amount described in the proposed rule.

Cable Landfall Construction

To support the connection of the offshore cable with the onshore cable, Dominion Energy would install both temporary goal posts and temporary cofferdams approximately 1,000 m (3,281 ft) offshore of the State Military Reservation in Virginia Beach, Virginia. These activities are two components of a broader set of activities conducted during cable landfall construction. The goal posts and cofferdams would support work associated with installing casing pipes housing the export cables. Dominion Energy would install the 9 casing pipes approximately 50 ft apart from each other at the cable landfall construction site using a Trenchless Installation approach. Using a tunneling approach similar to horizontal directional drilling (HDD), a boring machine would excavate the ground while simultaneously pushing strings of steel casing pipes along umbilical lines

using rollers or other movable support structures behind the boring drill using a pipe thruster machine. The export cables would be fed through these pushed casing pipes, which would terminate at an onshore exit point located west of the firing range from the State Military Reservation.

Temporary goal posts (made up of 42-in diameter steel pipe piles) would be installed between each exit location and would be used to guide the progress and movement of the casing pipes and to provide lateral stability. Temporary cofferdams are used to aid cable pull in as the cable is fed through the underground tunnel (located 6.6 ft (2 m) below the seabed). A technical description of the Trenchless Installation approach can be found in Section 1 of Dominion Energy's ITA application.

Trenchless installation requires the use of extensive equipment that would be staged at the onshore location for the cable. However, only the equipment required to extract the boring device, post-tunneling, is temporarily staged at the onshore exit location. Despite the extensive equipment necessary for this activity (see the ITA application for details), most of it is not expected to result in the take of marine mammals as the source levels are all generally very low. Even the pipe thruster does not vibrate or make noise and simply pushes the pipe forward with the boring device. Because of this, only the aspects for cable landfall construction that could cause the take of marine mammals (*i.e.,* impact and vibratory pile driving) is discussed further. The aspects of landfall construction that could cause the harassment of marine mammals is specifically due to the installation of steel pipe piles for goal posts and the installation and removal of sheet piles for cofferdams.

The goal posts would consist of 1.07 m (42 in) steel pipe piles that would be installed using an impact hammer for up to 130 minutes daily (a maximum of 2 installed per day). The duration of each strike of the impact hammer would be between 0.5–2 seconds in duration and necessitate approximately 260 strikes per pile. Up to 12 goal posts are required at each of the 9 casing pipe locations; hence 108 goal posts would be installed. Given there are 12 goal posts per each of the nine Direct Pipe locations, a total of 108 piles would be installed. Given up to 2 piles would be installed per day, there could be 520 strikes per day. To install all goal posts, Dominion Energy would conduct pile driving for 54 days.

Once installed, the goal posts can be removed using equipment not expected to generate any underwater acoustic noise as the majority of the force applied would be to overcome the skin friction of the material that is embedded in the substrate. This is expected to consist of pulling/tugging of the piles using mechanical or hydraulic equipment and take a similar amount of time of installation (*i.e.,* a total of 54 days for removal, although no take is expected). Based on Dominion Energy's schedule, which includes both installation and removal of the goal posts, these activities are expected to occur in 2024, between May 1st–October 31st, and necessitate approximately 6 months for complete installation and removal. Given no take is expected from the removal of goal posts, only the 54 days for installation of 108 total pipe piles has been carried forward into the Estimated Take of Marine Mammals section.

Dominion Energy also anticipates that up to nine temporary cofferdams, which would only be installed and removed via vibratory pile driving, may be necessary during cable landfall construction activities. These would be located at the Nearshore Trenchless Installation Punch-Out location, where the export cables would transition (via underground drilling) to the onshore cable landing location, to facilitate the preferred approach of lowering of the Direct Pipe burial underground (approximately 2 m (6.6. ft) below the seabed) to reduce the need for additional cable protections and to minimize the release of sediments and drilling fluids into the water. Each temporary cofferdam would consist of 30 to 40 steel sheet piles measuring 0.51 m (20 in) in diameter arranged in a predetermined configuration (270 to 360 steel sheet piles total for all nine cofferdams). Vibratory pile drivers would be used to both install and remove the steel sheet piles. Each sheet pile would necessitate approximately 2 to 3 minutes of active drive time for installation, at a maximum installation rate of 20 sheet piles per day (up to 40–60 minutes daily). To allow for flexibility in the plan, Dominion Energy has assumed installation will take approximately 3 days (180 minutes total) per cofferdam. Removal of these sheet piles would also occur by a vibratory driver and is estimated to take approximately the same amount of time to remove as it was to install for a total of 3 days per cofferdam. A single cofferdam would take a total of 6 days to install and remove. In total, pile driving (installation and removal) associated with all cofferdams would occur over 54 non-consecutive days.

Collectively, Dominion Energy estimates that the installation and removal of all necessary components for cable landfall activities that have the potential to result in take of marine mammals (*i.e.,* pile driving of goal posts and cofferdams) would take 108 days. However, within this 45 week period, activities not expected to harass marine mammals would also be occurring (*e.g.,* area preparation, material transportation, equipment staging, *etc.*) as the activities necessary for the installation and removal of all relevant goal posts and cofferdams are not consecutive. Therefore, Dominion Energy has estimated that activities potentially resulting in the take of marine mammals would only be occurring for approximately 6 months between May 1st through October 31st, 2024, which is what is described here. Although temporary cofferdam installation and removal is anticipated to occur from May 1st through October 31st of 2024 and take approximately 6 months, per Dominion Energy's construction schedule, both installation and removal will not occur within a consecutive 6 days (the total number of days for installation and removal to occur) but may instead occur at different points during the 6 month estimated duration.

High-Resolution Geophysical Surveys

HRG surveys would be conducted to identify any seabed debris and to support micro-siting of the WTG and OSS foundations and all cable routes. After construction is complete, HRG surveys would be conducted to ensure that all underwater project components have been properly installed. These surveys may utilize acoustic equipment such as multibeam echosounders, side scan sonars, shallow penetration sub-bottom profilers (SBPs) (*e.g.,* Compressed High-Intensity Radiated Pulses (CHIRPs) non-parametric SBP), medium penetration sub-bottom profilers (*e.g.,* sparkers and boomers), and ultra-short baseline positioning equipment, some of which are expected to result in the take of marine mammals. Surveys would occur annually, with durations dependent on the activities occurring in that year (*i.e.,* construction years versus operational years). Of the HRG equipment types proposed for use, the following sources have the potential to result in take of marine mammals:

- Shallow penetration sub-bottom profilers (SBPs) to map the near-surface stratigraphy (top 0 to 5 m (0 to 16 ft) of sediment below seabed). A CHIRP system emits sonar pulses that increase in frequency over time. The pulse length frequency range can be adjusted to meet

project variables. These are typically mounted on the hull of the vessel or from a side pole.

• Medium penetration SBPs (boomers) to map deeper subsurface stratigraphy as needed. A boomer is a broad-band sound source operating in the 3.5 Hz to 10 kHz frequency range. This system is typically mounted on a sled and towed behind the vessel.

• Medium penetration SBPs (sparkers) to map deeper subsurface stratigraphy as needed. A sparker creates acoustic pulses from 50 Hz to 4 kHz omni-directionally from the source that can penetrate several hundred meters into the seafloor. These are typically towed behind the vessel with adjacent hydrophone arrays to receive the return signals.

Table 4 identifies all the representative survey equipment that may be used during the CVOW–C proposed project.

TABLE 4—ACOUSTIC SOURCES PLANNED FOR USE DURING THE CVOW–C PROPOSED PROJECT AND THEIR OPERATIONAL PARAMETERS

Equipment classification	Representative equipment	Operating frequencies (kHz)	L_p	$L_{p,pk}$	Primary beam width (degrees)	Pulse duration (millisecond)
Subsea Positioning/ultra-short baseline (USBL).	Sonardyne Ranger 2 USBL	35–55	188	191	90	1
	EvoLogics S2CR	48–78	178	186	Horizontally Omnidirectional	500–600
	ixBlue Gaps	20–30	191	194	200	9–11
Multibeam Echosounder	R2Sonics 2026	170–450	191	221	0.45 × 0.45–1 × 1	0.015–1.115
Synthetic Aperture Sonar (SAS), combined bathymetry/sidescan [a].	Kraken Aquapix	337	210	213	>135 vertical, 1 horizontal	1–10
Side Scan Sonar [a]	EdgeTech 4200 dual frequency	300 and 600	[b] 206	[b] 212	140	5–10
Parametric SBP	Innomar SES–2000 Medium 100	2–22	241	247	2	0.07–1
NonParametric SBP	EdgeTech 216 CHIRP	2–16	193	196	15–25	5–40
	EdgeTech 512 CHIRP	0.5–12	[c] 177	[c] 191	16–41	20
Medium Penetration Seismic	Geo Marine Dual 400 Sparker 800J	0.25–4	[d] 200	[d] 210	Omnidirectional	0.5–0.8
	Applied Acoustics S-Boom (Triple Plate Boomer 1000J).	0.5–3.5	[e] 203	[e] 213	[f] 60	10
Magnetometer (Towed)	Geometrics G882	200	192	190	7	1.13

Note: dB re 1 μPa m—decibels referenced to 1 MicroPascal at 1 meter; kHz—kilohertz.

[a] The operating frequencies of these sources are above all relevant marine mammal hearing thresholds (>180 kHz) and are not expected to cause take by harassment of marine mammals.

[b] The source level is based on data from Crocker and Franantonio (2016) using the EdgeTech 4200 at 100 percent power and 100 kHz as a proxy.

[c] The source level is based on data from Crocker and Franantonio (2016) using the EdgeTech 512i at 100 percent power as a proxy.

[d] The source level is based information provided by the source manufacturer in the supplemental attachment to the ITA application called "Noise Level Stacked 400—tuned".

[e] The source level is based on data from Crocker and Franantonio (2016) using the Applied Acoustic S-Boom with CSP–N Energy Source set at 1,000 joules as a proxy.

[f] The beam width is based on data from Crocker and Franantonio (2016) using the Applied Acoustics S-Boom as a proxy.

As shown in Table 4 above, multibeam echosounders and side scan sonars used by Dominion Energy operate at frequencies above 180 kHz, which is outside of any marine mammal hearing range. Hence, take from these sources is not anticipated. In addition, due to the characteristics of non-impulsive sources (*i.e.,* Ultra-Short BaseLine (USBL), Innomar, and other parametric sub-bottom profilers), take is not anticipated due to operating characteristics like very narrow beam width which limit acoustic propagation. Finally, Dominion Energy may also use magnetometers; however, this equipment does not have an acoustic output, hence no take is anticipated. No harassment can be reasonably expected from the operation of any of these sources; therefore, they are not considered further in this proposed action. The sources that have the potential to result in harassment to marine mammals include CHIRPs, boomers, and sparkers.

HRG surveys would utilize between two or three vessels working concurrently in different sections of the Lease Area and Export Cable Routes. Both vessels would be operating several kilometers apart at any one time. On average, 58 km (36 mi) would be surveyed each survey day, per vessel, at a speed of approximately 2.4 km/hour (1.3 kts) on a 24-hour basis although some vessels may only operate during daylight hours (survey vessels operating for 12-hours). During the five-years the proposed rule would be effective an estimated area of 64,264 km^2 (24,812.5 mi^2; 15,879,980.2 acres) will be surveyed across the CVOW–C project area.

HRG site characterization surveys would occur annually and throughout the five years of the proposed authorization with duration dependent on the activities occurring in that year (*i.e.,* construction versus non-construction year). However, HRG survey activities would not commence earlier than February 5, 2024 (*i.e.,* the effective date of the proposed rule). The HRG survey schedule assumes 24-hour operations and does account for periods of potential downtime due to inclement weather or technical malfunctions. HRG surveys are anticipated to operate at any time of year for a maximum of 1,108 active sound source days (*i.e.,* days in which an acoustic source would be used) over the five-year project. Up to 65 days are anticipated pre-construction, 307 are anticipated to occur during the primary construction years (2025 and 2026), and 736 would occur the post-construction years (368 survey days annually). While the effective period of the proposed rulemaking would continue through a few months in 2029, no activities are planned to occur during this year so none are described here. An approximated schedule for Dominion Energy's HRG survey effort is shown in Table 5. As Dominion Energy is not sure of the exact geographic locations of the survey effort, these values cannot cleanly be broken up between the Lease Area and the Export Cable Routes. However, the values presented in Table 5 provide a comprehensive accounting of the total survey effort anticipated to occur, annually, by Dominion Energy.

TABLE 5—PROPOSED HRG SURVEY SCHEDULE FOR THE CVOW–C PROJECT

Survey segment	Year	Duration (days) [a]
Pre-Lay Surveys	2024	65
As-Built Surveys and Pre-Lay Surveys	2025	249
As-Built Surveys	2026	58
Post-Construction Surveys	2027	368
Post-Construction Surveys	2028	368

[a] As multiple vessels (*i.e.,* two survey vessels) may be operating concurrently across the project area, each day that a survey vessel is operating counts as a single survey day. For example, if two vessels are operating in one of the Export Cable Routes and one is operating in the Lease Area, but both are operating concurrently, this counts as two survey days.

Cable Laying and Installation

Cable burial operations would occur both in the Lease Area and export cable routes from the least area to shore. The inter-array cables would connect the 176 WTGs to any one of the three OSSs. Cables within the Export Cable Routes would carry power from the OSSs to shore at the landfall location near the firing range at the State Military Reservation in Virginia Beach, Virginia. The offshore export and inter-array cables would be buried in the seabed at a target depth of up to 0.8 m (2.6 ft) to 3 m (9.8 ft), although the exact depth will depend on the substrate in the area.

Cable laying, cable installation, and cable burial activities planned to occur during the construction of the CVOW–C project may include the following: jet plowing, jet trenching, chain cutting, hydro-plowing (simultaneous lay and burial), mechanical plowing (simultaneous lay and burial), pre-trenching (both simultaneous and separate lay and burial), mechanical trenching (simultaneous lay and burial), and/or other available technologies. As the noise levels generated from cable laying and installation work are low, the potential for take of marine mammals to result is discountable. Dominion Energy is not requesting and NMFS is not proposing to authorize take associated with cable laying activities. Therefore, cable laying activities are not analyzed further in this document.

Site/Seafloor Preparation

Prior to installation activities, Dominion Energy would conduct debris clearance, pre-lay grapnel runs, Unexploded Ordnance/Munitions and Explosives of Concern (UXO/MEC) relocation, and pre-lay surveys. While Dominion Energy does not expect any sandwave clearance or boulder removal activities to occur, planned vessel use described below in Table 6 indicates that these activities may occur. Because of this, we include additional information on what these activities may entail and how they would affect marine mammals.

Typically for offshore construction projects, some dredging may be required prior to cable laying due to the presence of sandwaves. Sandwave clearance is typically undertaken where cable exposure is predicted over the lifetime of a project due to seabed mobility. This facilitates cable burial below the reference seabed. Alternatively, sandwave clearance may be undertaken where slopes become greater than approximately 10 degrees (17.6 percent), which could cause instability to the burial tool. Dominion Energy does not anticipate any sandwave clearance (Dominion Energy, 2023). However, while unanticipated, if it becomes necessary to remove sandwaves, Dominion Energy will clear the area using subsea excavation methods. The work could be undertaken by traditional dredging methods such as a trailing suction hopper. Controlled flow excavation may be used to induce water currents to force the seabed into suspicion, where it would otherwise be directed to eventually settle (Dominion Energy, 2023). In some cases, pre-sweeping of the sandwaves may be necessary to provide a sufficient excavated platform at the base of the sandwave for tool installation. Surveys using multi-beams and other equipment may be necessary to inform on the seabed conditions before and after sandwave clearance and cable lay activities (Dominion Energy, 2023).

For monopile and jacket foundation installation, seafloor preparation could include required boulder clearance and removal of any obstructions within the Seafloor Preparation Area at each foundation location. Scour protection installation will occur prior to and/or after installation and will involve a rock dumping vessel placing scour at each foundation location.

For export cable installation, seafloor preparation typically includes required sandwave leveling, boulder clearance, and removal of any out of service cables. Boulder clearance trials are normally performed prior to wide-scale seafloor preparation activities to evaluate efficacy of boulder clearing techniques. Additionally, pre-lay grapnel runs may be undertaken to remove any seafloor debris along the Export Cable Routes. A specialized vessel will tow a grapnel rig along the centerline of each cable to recover any debris to the deck for appropriate licensed disposal ashore, where practicable. Concrete mattress separation layers may also be installed at cable routes prior to cable installation for both in-service assets as well as out-of-service assets that cannot be safely removed and pose a risk to the CVOW–C Export Cable Routes.

Boulder clearance may also be required in targeted locations to clear boulders along the Export Cable Routes, inter-array cable routes, and/or foundations prior to installation. Boulder removal can be performed using a combination of methods to optimize clearance of boulder debris of varying size and frequency. Removal is based on pre-surveys to identify location, size, and density of boulders. Surveys previously performed by Dominion Energy have indicated that no boulders over 0.5 m, or any other subsea obstructions, have been identified in the project area (Dominion Energy, 2023). If boulders are encountered during installation activities, Dominion Energy would move them from the Export Cable Routes, using either subsea grabs, or ploughs, and then relocate them to areas as close as possible to the original location of the undersea object (Dominion Energy, 2023). Boulder removal, if necessary to occur based on information obtained during pre-construction surveys, would be performed prior to the installation of the Export Cable Routes and would be completed by a support vessel. A boulder grab or a boulder plow may be used to complete boulder removal prior to installation. A boulder grab involves a grab most likely deployed from a dynamic positioning offshore support vessel being lowered to the seabed, over the targeted boulder. Once ''grabbed'', the boulder is relocated away from the cable route and/or foundation location.

Boulder clearance using a boulder plow is completed by a high-bollard pull vessel, with a towed plow generally forming an extended V-shaped configuration, splaying from the rear of the main chassis. The V-shaped configuration displaces any boulders to the extremities of the plow, thus clearing the corridor. A tracked plow with a front blade similar to a bulldozer may also be used to push boulders away from the corridor. The size of boulders that can be relocated is dependent on a number of factors including the boulder weight, dimensions, embedment, density and ground conditions. Typically, boulders with dimensions less than 2.5 m (8 ft) can be relocated with standard tools and equipment.

Effects from seafloor preparation on marine mammals are expected to be short-term, low intensity, and unlikely to qualify as a take. Dredging, sandwave leveling, and boulder clearance is expected to be extremely localized at any given time, and NMFS expects that any marine mammals would not be exposed at levels or durations likely to disrupt behavioral patterns (*i.e.,* migrating, foraging, calving, *etc.*). Therefore, the potential for take of marine mammals to result from these activities is so low as to be discountable. Dominion Energy did not request and NMFS is not proposing to authorize any takes associated with seabed preparation activities; therefore, they are not analyzed further in this document.

Vessel Operation

Dominion Energy would utilize a variety of vessels to construct the CVOW–C project. Vessels may be used for direct installation or construction activities, surveys, protected species resource monitoring, and for crew and/or supply transfers. All route plans for all vessels would be designed to meet the industry guidelines and best practices in accordance with the International Chamber of Shipping guidance. All vessels would utilize Automatic Identification Systems (AIS) for all aspects of the project, as required by the United States Coast Guard. AIS would be required to monitor the number of vessels and traffic patterns for analysis and compliance with vessel speed requirements. All vessels will operate in accordance with applicable rules and regulations for maritime operation within U.S. Federal and state waters.

The largest vessels are expected to be used during the WTG installation phase with floating/jack-up crane barges, cable-laying vessels, supply/crew vessels, and/or associated tugs and barges transporting construction equipment and materials. Large work vessels (*e.g.,* jack-up installation vessels and DP cable-laying vessels) for WTG and OSS foundation installation will generally transit to the work location and remain in the area until installation is complete. These large vessels will move slowly over a short distance between work locations. In contrast, other vessels will travel between several ports and the Lease Area over the course of the construction period following mandatory vessel speed restrictions (see Proposed Mitigation section). These vessels will range in size from smaller crew transport boats to tug and barge vessels. However, construction crews responsible for assembling the WTGs will hotel onboard installation vessels at sea, thus limiting the number of crew vessel transits expected during the installation of the Lease Area.

While marine mammals may respond to the presence of a vessel, given the predictable movement and ubiquitous presence of vessels in the marine environment, and especially the variable sizes, which consist of smaller support vessels that are predominate during offshore wind development, exposure to transiting vessels would not generally be expected to result in the disruption of marine mammal behavioral patterns such that a take would occur. As part of various vessel-based construction activities, including cable laying and construction material delivery, dynamic positioning thrusters may be utilized to hold vessels in position or move slowly. Sound produced through use of dynamic positioning thrusters is similar to that produced by transiting vessels, and dynamic positioning thrusters are typically operated either in a similarly predictable manner or used for short durations around stationary activities. Construction-related vessel activity, including the use of dynamic positioning thrusters, is not expected to result in take of marine mammals. Dominion Energy did not request and NMFS does not propose to authorize any take associated with vessel activity.

Dominion Energy has executed a lease agreement for a portion of the existing Portsmouth Marine Terminal facility in the city of Portsmouth, Virginia, to serve as a Construction Port (Sections 1–3, Dominion Energy, 2023). The Construction Port would be used to stage and store the monopiles and relevant transition pieces and to stage and store and pre-assemble wind turbine generation components. Dominion Energy is also currently evaluating several alternatives to lease portions of existing port facilities in the Hampton Roads, Virginia area for an operation and maintenance facility for the CVOW–C proposed project. The preferred location is Lambert's Point, located on a brownfield site in Norfolk, Virginia, although existing facilities at the Virginia Port Authority's Portsmouth Marine Terminal or Newport News Marine Terminal may also be viable options. These ports will continue to assist Dominion Energy to support offshore construction, assembly and fabrication, crew transfers, and logistics.

Vessel types and usage estimated to occur during the entire five-year effective period of the proposed rule, if issued, is shown in Table 6. NMFS references the reader to Dominion Energy's COP for additional information on vessels planned for use during the CVOW–C proposed project (Dominion Energy, 2023).

TABLE 6—PROPOSED PROJECT VESSEL USE DURING THE 5-YEAR CVOW–C PROJECT [1]

Vessel role	Vessel class	Number of vessels	Breadth (ft)	Length (ft)	Draft (ft)	Days on project, including spare positions	Most likely operating period	Frequency of transit	Transit destination
Scour Protection Installation.	Fall Pipe Vessel.	1	106	507	25	657	10/2023 to 12/2024 and 02/2025 to 10/2025.	Weekly	Canada/USA.

TABLE 6—PROPOSED PROJECT VESSEL USE DURING THE 5-YEAR CVOW–C PROJECT [1]—Continued

Vessel role	Vessel class	Number of vessels	Breadth (ft)	Length (ft)	Draft (ft)	Days on project, including spare positions	Most likely operating period	Frequency of transit	Transit destination
Transport Monopile/ Transition Pieces from U.S. Port to Installation Site.	U.S. Barge	2	105	400	20	823	04/2024 to 12/ 2025.	(188+17)/2 = 103 cycles in total for all barges.	Portsmouth, VA.
Tugs for Monopile/ Transition Piece Transport Barges.	U.S. Ocean-going Tug.	3	41	132	18	823	04/2024 to 12/ 2025.	103 + 52 = 155 cycles in total.	Portsmouth, VA.
Monopile/Transition Piece/ Offshore Substation Installation.	Heavy Lift Vessel (HLV).	1	161	711	36	804	04/2024 to 12/ 2025.	Monthly	Europe/Hampton Roads, VA.
Noise Monitoring.	Crew Transfer Vessel (CTV).	2	34	84	7	512	05/2024 to 10/ 2024 and 05/ 2025 to 10/ 2025.	Daily	Portsmouth, VA.
Noise Mitigation	Platform Support Vessel.	1	100	454	29	512	05/2024 to 10/ 2024 and 05/ 2025 to 10/ 2025.	2 cycles in total + X due to bad weather.	Portsmouth, VA.
Crew Transfer	CTV	1	23	65	6	822	04/2024 to 12/ 2025.	Every 2nd day ..	Portsmouth, VA.
Jacket Installation.	DP HLV	1	161	710	36	.....	.....	Monthly	Europe/Hampton Roads, VA.
Noise Monitoring for Jacket Installation.	Crew Transfer Vessel (CTV).	2	34	84	7	.....	.....	Daily	Portsmouth, VA.
Noise Mitigation for Jacket Installation.	Platform Support Vessel.	1	100	454	29	.....	.....	Daily	Portsmouth, VA.
Transport Jackets/TopSides From EU Port to Installation Site.	HLV	1	138	568	35	186	11/2024 to 04/ 2025.	3 cycles in total	Europe.
Assist Tugboat For Topside Installation.	U.S. Ocean-going Tug.	1	35	112	19	.....	.....	Daily	Hampton Roads, VA.
Offshore Cable Commissioning (Contingency Vessel).	DP2 JUV	2	230	132	20	288	11/2024 to 07/ 2025.	N/A	N/A.
Nearshore Trenchless Installation.	Drill Rig Spread	2	40	9	N/A	262	09/2023 to 02/ 2024.	N/A (staged at the direct pipe punch-out locations).	Hampton Roads, VA.
Nearshore Marine Assistance.	U.S. Multi Purpose Support Vessel (Multicat).	2	40	92	14	262	.....	Weekly	Portsmouth, VA.
Nearshore Marine Assistance.	U.S. Tug (Small).	1	35	112	19	262	.....	Weekly	Portsmouth, VA.
Landfall	Landfall Beach Spread.	1	N/A	N/A	N/A	523	01/2023 to 04/ 2024 and.	Weekly	Hampton Roads, VA.
Shore Pull-in	U.S. Pull-in Support Barge.	1	105	400	20	523	07/2024 to 09/ 2025.	Weekly	Portsmouth, VA.
Shore Pull-in	U.S. Workboat (Tug).	4	41	132	18	523	.....	Weekly	Portsmouth, VA.
Cable Lift Jack-Up Installation Vessel (Contingency Vessel).	JUV	1	105	144	13	.....	.....	.....	
Pre-lay Grapnel Run.	Multipurpose Support Vessel.	1	59	266	19	77	.....	Weekly	Portsmouth, VA.
Pre-installation Survey.	Survey Vessel	1	234	187	10	180	.....	Weekly	Portsmouth, VA.

TABLE 6—PROPOSED PROJECT VESSEL USE DURING THE 5-YEAR CVOW–C PROJECT [1]—Continued

Vessel role	Vessel class	Number of vessels	Breadth (ft)	Length (ft)	Draft (ft)	Days on project, including spare positions	Most likely operating period	Frequency of transit	Transit destination
Cable Laying and Burial.	Shallow-draft Cable Lay Vessel.	1	110	401	18	523	.....	Monthly	Europe/Hampton Roads, VA.
Anchor Handling.	Multi Purpose Support Vessel (Multicat).	2	40	92	14	523	.....	Daily	Hampton Roads, VA.
Transport Cable	Multi Purpose Support Vessel.	3	79	289	15	131	.....	Single Trip	Europe/Hampton Roads, VA.
Cable Burial	Hydroplow (Jetting).	1	20	53	14	523	.....	N/A	Europe/Hampton Roads, VA.
Crew Transfer	CTV	1	34	87	10	523	.....	Every 2nd Day	Portsmouth, VA.
As-built Survey	Survey Vessel	1	234	87	10	46	.....	Weekly	Portsmouth, VA.
Pre-lay Survey (Offshore Export Cable).	Survey Vessel	34	87	10	10	180	1/2023 to 04/2024 and 08/2024 to 09/2025 and 11/2025 to 02/2026.	Weekly	Portsmouth, VA.
Cable Laying and Burial (Offshore Export Cable).	Deep-draft Cable Lay Vessel.	1	106	528	22	535	.....	Monthly	Hampton Roads, VA.
Cable Laying and Burial (Offshore Export Cable).	Deep-draft Cable Lay Vessel.	1	39	110	9	470	.....	Monthly	Europe/Hampton Roads, VA.
Cable burial (Offshore Export Cable).	Trenching Support or Cable Laying Vessel.	1	105	529	25	604	.....	Monthly	Europe/Hampton Roads, VA–.
Cable burial (Offshore Export Cable).	Trenching Support or Cable Laying Vessel.	1	112	561	28	605	.....	Monthly	Europe/Hampton Roads, VA–.
Cable burial (Offshore Export Cable).	Burial Tool (Post-lay Jetting).	2	25	46	19	1,209	.....	Monthly	Europe/Hampton Roads, VA–.
Offshore Jointing Vessel (Offshore Export Cable).	.....	1	23	565	6	.....	.....	Monthly	Europe/Hampton Roads, VA.
Pre-lay Grapnel Run (Inter Array Cable).	Multipurpose Support Vessel.	1	26	92	9	109	01/2023 to 04/2024 and 11/2024 to 05/2026.	Weekly	Portsmouth, VA.
Pre-lay Survey (Inter-Array Cable).	Survey Vessel	1	23	85	5	52	.....	Weekly	Portsmouth, VA.
Cable Laying and burial (Inter-Array Cable).	Deep-draft Cable Lay Vessel.	1	106	528	25	558	.....	Every 60 days	Europe/Hampton Roads, VA.
Multipurpose Service Vessel (Inter-Array Cable).	W2W	2	76	292	18	303	.....	Monthly	Hampton Roads, VA.
Crew Transfer (Inter-Array Cable).	CTV	2	23	65	6	558	.....	Every 2nd Day	Portsmouth, VA.
Cable Burial (Inter-Array Cable).	Trenching Support Vessel or Cable Laying Vessel.	1	105	529	37	559	.....	Every 60 days	Hampton Roads, VA.
Cable Burial (Inter-Array Cable).	Burial tool (Post-lay Jetting).	1	25	46	19	558	.....	Every 60 days	Hampton Roads, VA.
As-built Survey (Inter-Array Cable).	Deep draft Cable Lay Vessel.	1	106	528	25	38	.....	Weekly	Portsmouth, VA.
WTG Installation.	JUV	1	184	472	23	923	08/2025 to 02/2027.	Vessel 1: Every 10–14 days Vessel 2: N/A.	Vessel 1: Portsmouth, VA Vessel 2: N/A.

TABLE 6—PROPOSED PROJECT VESSEL USE DURING THE 5-YEAR CVOW–C PROJECT [1]—Continued

Vessel role	Vessel class	Number of vessels	Breadth (ft)	Length (ft)	Draft (ft)	Days on project, including spare positions	Most likely operating period	Frequency of transit	Transit destination
Transport WTGs from U.S. port to installation site.	U.S. Barge	2	100	400	20	792	.....	Approximately every 3 days.	Portsmouth, VA.
Transport WTGs from U.S. Port to Installation Site.	U.S. Ocean-going Tug.	2	41	132	18	792	.....	Approximately every 3 days.	Portsmouth, VA.
Assist Tugboat	U.S. Ocean-going Tug.	1	35	112	19	.....	.....	Approximately every 3 days.	Hampton Roads, VA.
Commissioning Spread.	Multi-role subsea Support Vessel with W2W.	1	52	354	18	792	08/2025 to 04/2027.	Bi-weekly	Portsmouth, VA.
Site Security	Safety vessel, Nearshore Trenchless Installation.	1	Varies	Varies	Varies	1.8684	09/2023 to 08/2027.	Bi-weekly	Portsmouth, VA.
Removing Sandwaves (Contingency Vessel).	Trailer Suction Hopper Dredger.	1	92	480	30	117.6	2023	Daily	Portsmouth, VA.
Boulder Pickering (Contingency Vessel).	Anchor Handling Tug + Crane Barge.	2	46	146	21	117.6	2023	Weekly	Portsmouth, VA.
Boulder Ploughing (Contingency Vessel).	Anchor Handling Tug + Towed Plow.	1	36	190	11	157.2	2023	Weekly	Portsmouth, VA.
Crossing Protection (Concrete Mattresses).	Fall Pipe Vessel or Deep Draft Cable Lay Vessel.	1	46	146	21	126	2024 to 2026 ...	Between 2 and 27 cycles.	Portsmouth, VA.

Note: N/A means not applicable and—means the information was not provided by Dominion Energy.

[1] While most of these vessels are planned for construction, not all would be used. However, NMFS has opted to include all possible vessels with all available information to provide the best possible understanding of what vessels may be involved in the CVOW–C proposed project.

Helicopter Usage

Dominion Energy may supplement vessel-based transport with helicopter usage to transfer crew to and from both the shore and the Lease Area (crew transfer vessels described in Table 6 above does not consider helicopter use and thus, is a conservative estimate). Helicopter usage would align with the best practices from the Federal Aviation Administration and other relevant stakeholders when determining routes and altitudes for travel. Helicopter use is expected primarily from 2024–2026 at a rate of up to four roundtrip flights per week, equating to 208 roundtrips annually and up to 624 roundtrips total. Project-related aircraft would only occur at low altitudes over water during takeoff and landing at an offshore location where one or more vessels are located. Helicopters produce sounds that can be audible to marine mammals; however, most sound energy from aircraft reflects off the air-water interface as only sound radiated downward within a 26-degree cone penetrates below the surface water (Urick, 1972). Due to the intermittent nature and the small area potentially ensonified by this sound source for a very limited duration, Dominion Energy did not request, and NMFS is not proposing to authorize take of marine mammals incidental to helicopter flights; therefore, this activity will not be discussed further in this proposed action.

Fisheries Monitoring Surveys

Dominion Energy plans to undertake fisheries monitoring surveys, in partnership with the Virginia Institute of Marine Sciences (VIMS), Atlantic surf clam (*Spisula solidissima*) fishers, black sea bass (*Centropristis striata*) fishers, whelk (*Buccinidae* spp.) fishers, Rutgers University, and the Virginia Marine Resource Commission (VMRC), as required by BOEM to support the regulatory filings for renewable energy projects proposed in the Atlantic Lease Areas (30 CFR 585.627(a)(3)). Fisheries monitoring surveys have been designed in accordance with recommendations set forth by the Responsible Offshore Science Alliance (ROSA) Offshore Wind Project Monitoring Framework and Guidelines (*https://www.rosascience.org/offshore-wind-and-fisheries-resources/*; ROSA, 2021), which is based extensively on existing BOEM guidance for providing information on fisheries during work related to offshore wind projects (*https://www.boem.gov/sites/default/files/renewable-energy-program/Regulatory-Information/BOEM-Fishery-Guidelines.pdf*; BOEM, 2019). Dominion Energy would sample black sea bass and whelks using pots with weighted groundlines and Atlantic surf clams using a novel dredge tow (designed by Rutgers University and other industry experts). The pot/trap surveys will have a two-day soak time. Dominion Energy will be using on-demand fishing systems aimed at reducing the entanglement risk to protected species. These systems include, but are not limited to, spooled systems, buoy and stowed systems, lift bag systems, and grappling (more information on these systems can be found at *https://www.fisheries.noaa.gov/new-england-*

mid-atlantic/marine-mammal-protection/developing-viable-demand-gear-systems#:~:text=Line%20wrapped%20around%20a%20buoyant%20spool%20is%20tethered,retrieve%20it%2C%20and%20the%20gear%20on%20the%20string). The survey tows completed by this dredge will be shorter than typical commercial tows. Dredge tows do not inherently have the potential to result in take of marine mammals. Pot-based surveys may, absent mitigation, result in the take of marine mammals. However, Dominion Energy would implement mitigation and monitoring measures to avoid taking marine mammals, including, but not limited to: monitoring for marine mammals before and during dredging and gear deployment activities, not deploying or pulling gear in certain circumstances, maintaining marine mammal watches at least 15 minute before to both the deployment and retrieval of the gear, and moving to a new sampling location if a marine mammal appears at risk of interactions with the gear. A full description of the mitigation measures can be found in the Proposed Mitigation section. Dominion Energy had also proposed to conduct trawl surveys; however, they subsequently removed trawling from their plans. Hence, trawl surveys would not occur.

With the implementation of these measures, Dominion Energy does not anticipate, and NMFS is not proposing, to authorize take of marine mammals incidental to fishery surveys. Given no take is anticipated from these surveys, impacts from fishery surveys will not be discussed further in this document aside from listing the required mitigation measures (see Proposed Mitigation section).

Description of Marine Mammals in the Area of Specified Activities

Thirty-nine marine mammal species under NMFS' jurisdiction have geographic ranges within the western North Atlantic OCS (Hayes *et al.,* 2022), with six of these being protected under the Endangered Species Act (ESA). However, for reasons described below, Dominion Energy has requested and NMFS proposes to authorize take of only 21 species (comprising 22 stocks) of marine mammals. Sections 3 and 4 of Dominion Energy's application summarize available information regarding status and trends, distribution and habitat preferences, and behavior and life history of the potentially affected species (Dominion Energy, 2023). NMFS fully considered all of this information, and we refer the reader to these descriptions in the application, incorporated here by reference, instead of reprinting the information. Additional information regarding population trends and threats may be found in NMFS's Stock Assessment Reports (SARs; *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments*) and more general information about these species (*e.g.,* physical and behavioral descriptions) may be found on NMFS's website (*https://www.fisheries.noaa.gov/find-species*).

Of the 39 marine mammal species and/or stocks with geographic ranges that include the CVOW–C project area found in the coastal and offshore waters of Virginia (Table 11 in Dominion Energy's ITA application), 17 are not expected to be present or are considered rare or unexpected in the project area based on sighting and distribution data; they are, therefore, not discussed further beyond the explanation provided here. Specifically, the following cetacean species are known to occur offshore of Virginia but are not expected to occur in the project area due to the location of preferred habitat outside the Lease Area and Export Cable Routes, based on the best available information: dwarf sperm whale (*Kogia sima*), Fraser's dolphin (*Lagenodelphis hosei*), killer whale (*Orcinus orca*), pygmy killer whale (*Feresa attenuata*), rough-toothed dolphin (*Steno bredanensis*), spinner dolphin (*Stenalla longirostris orientalis*), striped dolphin (*Stenella coeruleoalba*), white-beaked dolphin (*Lagenorhynchus albirostris*), Cuvier's beaked whale (*Ziphius cavirostris*), four species of Mesoplodont beaked whales (*Mesoplodon densitostris, M. europaeus, M. mirus, and M. bidens*), and the blue whale (*Balaenoptera musculus*). Two species of phocid pinnipeds are also uncommon in the CVOW–C project area, including: harp seals (*Pagophilus groenlandica*) and hooded seals (*Cystophora cristata*). In addition, the Florida manatees (*Trichechus manatus;* a sub-species of the West Indian manatee) has been previously documented as an occasional visitor to the Mid-Atlantic region during summer months (Morgan *et al.,* 2002; Cummings *et al.,* 2014). However, manatees are managed by the U.S. Fish and Wildlife Service (USFWS) and are not considered further in this document.

None of the aforementioned species were observed during HRG surveys conducted by Dominion Energy in and around Virginia from 2018–2021 based on monitoring reports received for previously issued high-resolution site characterization IHAs (85 FR 55415, September 8, 2020; 85 FR 81879, December 17, 2020; 86 FR 21298, April 22, 2021), for the construction of the CVOW Pilot Project (85 FR 30930, May 21, 2020) or Unexploded Ordnance/Munitions and Explosives of Concern (UXO/MEC)-specific surveys (83 FR 39062, August 8, 2018). However, four marine mammal species that might otherwise be considered rare were detected through PAM/visually observed by marine mammal monitors during work under these previous IHAs. These include: false killer whales (one acoustically detected, four observed), pygmy sperm whales (one acoustically detected, one observed), Clymene dolphin (five observed), and melon-headed whales (one acoustically detected, five recorded). Although these were detected in low numbers, these observations/detections did occur within locations near the CVOW–C project area where NMFS considers it reasonably likely that some individuals may be observed during the five-year effective period of the proposed rulemaking. Because of this, NMFS has proposed to authorize take of these species.

Table 7 lists all species and stocks for which take is expected and proposed to be authorized for this action, and summarizes information related to the population or stock, including regulatory status under the MMPA and Endangered Species Act (ESA) and potential biological removal (PBR) level, where known. PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population (16 U.S.C. 1362(20)) and can be found in NMFS's SARs. While no mortality is anticipated or proposed for authorization here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS's stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS's U.S. Atlantic and Gulf of Mexico SARs. All values presented in Table 7 are the most recent available at

the time of publication and are available in NMFS' final 2021 SARs (Hayes *et al.,* 2022) and draft 2022 SARs available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/draft-marine-mammal-stock-assessment-reports.*

TABLE 7—MARINE MAMMAL SPECIES [5] LIKELY TO OCCUR NEAR THE PROJECT AREA THAT MAY BE TAKEN BY DOMINION ENERGY'S PROPOSED ACTIVITIES

Common name	Scientific name	Stock	ESA/MMPA status; strategic (Y/N) [1]	Stock abundance (CV, N_{min}, most recent abundance survey) [2]	PBR	Annual mortalities or serious injuries (M/SI) [3]
Order Artiodactyla—Cetacea—Superfamily Mysticeti (baleen whales)						
Family Balaenidae:						
North Atlantic right whale	*Eubalaena glacialis*	Western Atlantic	E, D, Y	338 (0; 332; 2020) [5]	0.7	8.1
Family Balaenopteridae (rorquals):						
Fin whale	*Balaenoptera physalus*	Western North Atlantic	E, D, Y	6,802 (0.24; 5,573; 2016)	11	1.8
Humpback whale	*Megaptera novaeangliae*	Gulf of Maine	-, -, Y	1,396 (0; 1,380; 2016)	22	12.15
Minke whale	*Balaenoptera acutorostrata*	Canadian Eastern Coastal	-, -, N	21,968 (0.31; 17,002; 2016).	170	10.6
Sei whale	*Balaenoptera borealis*	Nova Scotia	E, D, Y	6,292 (1.02; 3,098; 2016)	6.2	0.8
Family Physeteridae:						
Sperm whale	*Physeter macrocephalus*	North Atlantic	E, D, Y	4,349 (0.28; 3,451; 2016)	3.9	0
Family Kogiidae:						
Pygmy sperm whale [7] [8]	*Kogia breviceps*	Western North Atlantic	-, -, N	7,750 (0.38; 5,689; 2016)	46	0
Family Delphinidae:						
Atlantic spotted dolphin	*Stenella frontalis*	Western North Atlantic	-, -, N	39,921 (0.27; 32,032; 2016).	320	0
Atlantic white-sided dolphin	*Lagenorhynchus acutus*	Western North Atlantic	-, -, N	93,233 (0.71; 54,433; 2016).	544	27
Bottlenose dolphin	*Tursiops truncatus*	Western North Atlantic—Offshore.	-, -, N	62,851 (0.23; 51,914; 2016).	519	28
		Southern Migratory Coastal	-, -, Y	3,751 (0.6; 185; See SAR).	23	0–18.3
Clymene dolphin [7]	*Stenella clymene*	Western North Atlantic	-, -, N	4,237 (1.03; 2,071; 2016)	21	0
Common dolphin	*Delphinus delphis*	Western North Atlantic	-, -, N	172,897 (0.21; 145,216; 2016).	1,452	390
False killer whale [7]	*Pseudorca crassidens*	Western North Atlantic	-, -, N	1,791 (0.56; 1,154; 2016)	12	0
Melon-headed whale [7]	*Peponocephala electra*	Western North Atlantic	-, -, N	UNK (UNK; UNK; 2016)	UNK	0
Long-finned pilot whale [6]	*Globicephala melas*	Western North Atlantic	-, -, N	39,215 (0.3; 30,627; 2016).	306	29
Short-finned pilot whale [6]	*Globicephala macrorhynchus*	Western North Atlantic	-, -, Y	28,924 (0.24, 23,637, See SAR).	236	136
Pantropical spotted dolphin	*Stenella attenuata*	Western North Atlantic	-, D, N	6,593 (0.52, 4,367, See SAR).	44	0
Risso's dolphin	*Grampus griseus*	Western North Atlantic	-, -, N	35,215 (0.19; 30,051; 2016).	301	34
Family Phocoenidae (porpoises):						
Harbor porpoise	*Phocoena phocoena*	Gulf of Maine/Bay of Fundy	-, -, N	95,543 (0.31; 74,034; 2016).	851	16
Order Carnivora—Superfamily Pinnipedia						
Family Phocidae (earless seals):						
Gray seal [4]	*Halichoerus grypus*	Western North Atlantic	-, -, N	27,300 (0.22; 22,785; 2016).	1,389	4,453
Harbor seal	*Phoca vitulina*	Western North Atlantic	-, -, N	61,336 (0.08; 57,637; 2018).	1,729	339

[1] ESA status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

[2] NMFS' marine mammal stock assessment reports can be found online at: *www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments.* CV is the coefficient of variation; N_{min} is the minimum estimate of stock abundance. In some cases, CV is not applicable.

[3] These values, found in NMFS' SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.,* commercial fisheries, ship strike).

[4] NMFS' stock abundance estimate (and associated PBR value) applies to the U.S. population only. Total stock abundance (including animals in Canada) is approximately 451,431. The annual M/SI value given is for the total stock.

[5] Information on the classification of marine mammal species can be found on the web page for The Society for Marine Mammalogy's Committee on Taxonomy (*https://marinemammalscience.org/science-and-publications/list-marine-mammal-species-subspecies/*; Committee on Taxonomy (2022)).

[6] Although both species are described here, the requested take for both short-finned and long-finned pilot whales has been summarized into a single group (pilot whales spp.).

[7] While these species were not originally included in Dominion Energy's request, given recorded sightings/detections of these species during previous Dominion Energy IHAs in the same general area, NMFS has included these as species that may be harassed (by Level B harassment only) during the five-year effective period of this proposed rulemaking.

[8] Estimate is for Kogia spp. only.

As indicated above, all 21 species and 22 stocks in Table 7 temporally and spatially co-occur with the activity to the degree that take is reasonably likely to occur. Four of the marine mammal species for which take is requested are listed as threatened or endangered under the ESA, including North Atlantic right, fin, sei, and sperm whales. In addition to what is included in Sections 3 and 4 of Dominion Energy's ITA application (*https://www.fisheries.noaa.gov/action/incidental-take-authorization-dominion-energy-virginia-construction-coastal-virginia*), the SARs (*https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments*), and NMFS' website (*https://www.fisheries.noaa.gov/species-directory/marine-mammals*), we provide further detail below informing the baseline for select species (*e.g.,* information regarding current Unusual Mortality Events (UME) and known important habitat areas, such as Biologically Important Areas (BIAs) (Van Parijs, 2015). There are no ESA-designated critical habitats for any species within the CVOW–C project area.

Under the MMPA, a UME is defined as ''a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response'' (16 U.S.C. 1421h(6)). As of April 13, 2023, five UMEs are considered active, with four of these occurring along the U.S. Atlantic coast for various marine mammal species; of these, the most relevant to the CVOW–C project are the North Atlantic right whale and the humpback whale, given the prevalence of these species in the project area. A more recent UME is active for the Northeast pinnipeds (harbor and gray seals) but has only been recorded in Maine, which is outside the project area. Two other UMEs, one for the Atlantic minke whale from 2017–2022 and one for the Northeast pinnipeds (harbor and gray seals) from 2018–2020, are considered non-active and are pending closure. More information on UMEs, including all active, closed, or pending, can be found on NMFS' website at *https://www.fisheries.noaa.gov/national/marine-life-distress/active-and-closed-unusual-mortality-events*.

Below we include information for a subset of the species that presently have an active or recently closed UME occurring along the Atlantic coast, or for which there is information available related to areas of biological significance. For the majority of species potentially present in the specific geographic region, NMFS has designated only a single generic stock (*e.g.,* ''western North Atlantic'') for management purposes. This includes the ''Canadian east coast'' stock of minke whales, which includes all minke whales found in U.S. waters and is also a generic stock for management purposes. For humpback and sei whales, NMFS defines stocks on the basis of feeding locations, *i.e.,* Gulf of Maine and Nova Scotia, respectively. However, references to humpback whales and sei whales in this document refer to any individuals of the species that are found in the specific geographic region. Any areas of known biological importance (including the BIAs identified in La Brecque *et al.,* 2015) that overlap spatially with the project area are addressed in the species sections below.

North Atlantic Right Whale

The North Atlantic right whale has been listed as Endangered since the ESA was enacted in 1973. They were recently uplisted from Endangered to Critically Endangered on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species (Cooke, 2020). The uplisting was due to a decrease in population size (Pace *et al.,* 2017), an increase in vessel strikes and entanglements in fixed fishing gear (Knowlton *et al.,* 2012; Daoust *et al.,* 2017; Davis and Brillant, 2019; Sharp *et al.,* 2019; Moore *et al.,* 2021; Knowlton *et al.,* 2022), and a decrease in birth rate (Pettis *et al.,* 2021; Reed *et al.,* 2022). The Western Atlantic stock is considered depleted under the MMPA (Hayes *et al.,* 2022). There is a recovery plan (NOAA Fisheries, 2005) for the North Atlantic right whale, and NMFS completed 5-year reviews of the species in 2012,2017, and 2022 which concluded no change to the listing status is warranted.

The North Atlantic right whale population had only a 2.8 percent recovery rate between 1990 and 2011, and an overall abundance decline of 29.7 percent from 2011–2020 (Hayes *et al.,* 2022). Since 2010, the North Atlantic right whale population has been in decline (Pace *et al.,* 2017; Pace *et al.,* 2021), with a 40 percent decrease in calving rate (Kraus *et al.,* 2016; Moore *et al.,* 2021). North Atlantic right whale calving rates dropped from 2017 to 2020, with zero births recorded during the 2017–2018 season. The 2020–2021 calving season had the first substantial calving increase in five years, with 20 calves born, followed by 15 calves during the 2021–2022 calving season. However, mortalities continue to outpace births, and best estimates indicate fewer than 100 reproductively active females remain in the population.

NMFS' regulations at 50 CFR 224.105 designated nearshore waters of the Mid-Atlantic Bight as Mid-Atlantic U.S. Seasonal Management Areas (SMAs) for right whales in 2008. These specific SMAs were developed to reduce the threat of collisions between ships and right whales around their migratory route and calving grounds. As mentioned previously, the Chesapeake Bay SMA is within the vicinity of the proposed project area (*https://apps-nefsc.fisheries.noaa.gov/psb/surveys/MapperiframeWithText.html*). The SMA is currently active from November 1 through April 30 of each year and may be used by right whales for migrating. As noted above in the Summary of Request section, NMFS is proposing changes to the North Atlantic right whale speed rule (87 FR 46921; August 1, 2022).

The proposed project area (456.5 km^2) spatially overlaps a portion of the migratory corridor BIA (269,488 km^2 (66,591,935 acres)) within which right whales migrate south to calving grounds generally in November and December. A northward right whale migration into feeding areas north of the project area occurs in March and April (LaBrecque *et al.,* 2015; Van Parijs *et al.,* 2015). The proposed project area is also in the vicinity of the currently established November 1st through April 30th Chesapeake Bay SMA (73 FR 60173; October 10, 2008), which may be used by right whales for various activities, including migration. Due to the current status of North Atlantic right whales, and the overlap of the proposed CVOW–C project with areas of biological significance (*i.e.,* a migratory corridor), the potential impacts of the proposed project on right whales warrant particular attention.

In late fall, a portion of the right whale population (including pregnant females) typically departs the feeding grounds in the North Atlantic, moves south along the migratory corridor BIA, including through the proposed project area, to right whale calving grounds off Georgia and Florida. Right whales feed primarily on the copepod, *Calanus finmarchicus,* a species whose availability and distribution has changed both spatially and temporally over the last decade due to an oceanographic regime shift that has been ultimately linked to climate change (Meyer-Gutbrod *et al.,* 2021; Record *et al.,* 2019; Sorochan *et al.,* 2019). This distribution change in prey availability has led to shifts in right whale habitat-use patterns over the same time period (Davis *et al.,* 2020;

Meyer-Gutbrod *et al.,* 2022; Quintano-Rizzo *et al.,* 2021, O'Brien *et al.,* 2022) with reduced use of foraging habitats in the Great South Channel and Bay of Fundy and increased use of habitats within Cape Cod Bay and a region south of Martha's Vineyard and Nantucket Islands (Stone *et al.,* 2017; Mayo *et al.,* 2018; Ganley *et al.,* 2019; Record *et al.,* 2019; Meyer-Gutbrod *et al.,* 2021); these foraging habitats are all located several hundred kilometers north of the project area. Passive acoustic monitoring data demonstrates that since 2010, North Atlantic right whale use of the mid-Atlantic and southeast has increased (Davis *et al.,* 2017). Observations of these transitions in right whale habitat use, variability in seasonal presence in identified core habitats, and utilization of habitat outside of previously focused survey effort prompted the formation of a NMFS' Expert Working Group, which identified current data collection efforts, data gaps, and provided recommendations for future survey and research efforts (Oleson *et al.,* 2020). Recent research indicates understanding of their movement patterns remains incomplete and not all of the population undergoes a consistent annual migration (Davis *et al.,* 2017; Gowan *et al.,* 2019; Krzystan *et al.,* 2018). Non-calving females may remain in the feeding grounds, during the winter in the years preceding and following the birth of a calf to increase their energy stores (Gowen *et al.,* 2019).

North Atlantic right whale presence within the CVOW–C project area is predominantly seasonal with individuals likely to be transient and migrating through the area. The highest density months for North Atlantic right whales in this area are November through April, however, mitigation measures include a restriction on pile driving during this time period. Right whales have also been acoustically detected off coastal Virginia year-round with detections during the late fall (October–December) and late winter/early spring (February–March) (Salisbury *et al.,* 2016). Density data from Roberts and Halpin (2022) confirm, of the months planned for construction (May through October), the highest average density of right whales in the CVOW–C project area occurs in May (0.00015 individuals/km^2). However, based upon sightings and acoustic detections, right whales are likely to be present to some degree in or near the proposed project area throughout the year (Salisbury *et al.,* 2016; Davis et al., 2017; Cotter, 2019), though we do not expect that the right whale presence would be in the larger numbers typically associated with a foraging or calving ground.

Elevated right whale mortalities have occurred since June 7, 2017, along the U.S. and Canadian coast, with the leading category for the cause of death for this UME determined to be ''human interaction,'' specifically from entanglements or vessel strikes. As of April 13, 2023, there have been 36 confirmed mortalities (dead stranded or floaters), 0 pending mortalities, and 33 seriously injured free-swimming whales for a total of 69 whales. As of October 14, 2022, the UME also considers animals (n=29) with sub-lethal injury or illness (called ''morbidity'') bringing the total number of whales in the UME to 98. Approximately 42 percent of the population is known to be in reduced health (Hamilton *et al.,* 2021), likely contributing to smaller body sizes at maturation, making them more susceptible to threats and reducing fecundity (Moore *et al.,* 2021; Reed *et al.,* 2022; Stewart *et al.,* 2022). More information about the North Atlantic right whale UME is available online at: *www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event.*

Humpback Whale

Humpback whales are found worldwide in all oceans, but were listed as endangered under the Endangered Species Conservation Act (ESCA) in June 1970. In 1973, the ESA replaced the ESCA, and humpbacks continued to be listed as endangered.

On September 8, 2016, NMFS divided the once single species into 14 distinct population segments (DPS), removed the species-level listing, and, in its place, listed four DPSs as endangered and one DPS as threatened (81 FR 62259; September 8, 2016). The remaining nine DPSs were not listed. The West Indies DPS, which is not listed under the ESA, is the only DPS of humpback whales that is expected to occur in the project area. Bettridge *et al.* (2015) estimated the size of the West Indies DPS population at 12,312 (95 percent confidence interval (CI) 8,688–15,954) whales in 2004–05, which is consistent with previous population estimates of approximately 10,000–11,000 whales (Smith *et al.,* 1999; Stevick *et al.,* 2003) and the increasing trend for the West Indies DPS (Bettridge *et al.,* 2015).

Humpback whales are migratory off coastal Virginia, moving seasonally between northern feeding grounds in New England and southern calving grounds in the West Indies (Hayes *et al.,* 2022). However, not all humpback whales migrate to the Caribbean during the winter as individuals are sighted in mid- to high-latitude areas during this season (Swingle *et al.,* 1993; Davis *et al.,* 2020). In addition to a migratory pathway, the mid-Atlantic region also represents a supplemental winter feeding ground for juveniles and mature whales (Barco *et al.,* 2002). Records of humpback whales off the U.S. mid-Atlantic coast (New Jersey south to North Carolina) suggest that these waters are used as a winter feeding ground from December through March (Mallette *et al.,* 2017; Barco *et al.,* 2002; LaBrecque *et al.,* 2015) and represent important habitat for juveniles, in particular (Swingle *et al.,* 1993; Wiley *et al.,* 1995). Mallette *et al.* (2017) documented site fidelity of individual humpback whales to coastal Virginia waters across seasons and years from 2012–2017. Based upon the analysis of stomach contents from humpback whales that have previously stranded in the coastal Virginia area, whales may feed upon Atlantic menhaden and bay anchovy off coastal Virginia (Mallette *et al.,* 2017).

Since January 2016, elevated humpback whale mortalities along the Atlantic coast from Maine to Florida led to the declaration of a UME. Partial or full necropsy examinations have been conducted on approximately half of the 191 known cases (as of April 13, 2023). Of the whales examined (approximately 90), about 40 percent had evidence of human interaction, either ship strike or entanglement (*https://www.fisheries.noaa.gov/national/marine-life-distress/2016-2023-humpback-whale-unusual-mortality-event-along-atlantic-coast*). While a portion of the whales have shown evidence of pre-mortem vessel strike, this finding is not consistent across all whales examined and more research is needed. NOAA is consulting with researchers that are conducting studies on the humpback whale populations, and these efforts may provide information on changes in whale distribution and habitat use that could provide additional insight into how these vessel interactions occurred. More information is available at: *https://www.fisheries.noaa.gov/national/marine-life-distress/2016-2023-humpback-whale-unusual-mortality-event-along-atlantic-coast.*

Since December 1, 2022, the number of humpback strandings along the mid-Atlantic coast, including Virginia off Virginia Beach, has been elevated. In some cases, the cause of death is not yet known. In others, vessel strike has been deemed the cause of death. As the humpback whale population has grown,

they are seen more often in the Mid-Atlantic. Along the New York/New Jersey/Virginia shore, these whales may be following their prey which are reportedly close to shore in the winter. These prey also attract fish that are of interest to recreational and commercial fishermen. This increases the number of boats in these areas. More whales in the water in areas traveled by boats of all sizes increases the risk of vessel strikes. Vessel strikes and entanglement in fishing gear are the greatest human threats to large whales.

Fin Whale

Fin whales frequently occur in the waters of the U.S. Atlantic Exclusive Economic Zone (EEZ), principally from Cape Hatteras, North Carolina northward and are distributed in both continental shelf and deep water habitats (Hayes *et al.,* 2022). Although fin whales are present north of the 35-degree latitude region in every season and are broadly distributed throughout the western North Atlantic for most of the year, densities vary seasonally (Edwards *et al.,* 2015; Hayes *et al.,* 2022). Acoustic detections suggest year-round presence in Virginia waters, with the greatest number of detections occurring from August through April (Davis *et al.,* 2020). Acoustic observations of fin whale singers from both the Atlantic Continental Shelf and deep-ocean areas provide evidence of fin whale singing throughout these regions year-round and support the conclusion that male fin whales are broadly distributed throughout the western North Atlantic for most of the year (Watkins *et al.,* 1987; Clark and Gagnon, 2002; Morano *et al.,* 2012; Davis *et al.,* 2020; Hayes *et al.,* 2022).

The New England area represents a major feeding ground for fin whales, with two known foraging BIAs in the general area. Fin whales typically feed in the Gulf of Maine and the waters surrounding New England, but their mating and calving (and general wintering) areas are largely unknown (Hain *et al.,* 1992, Hayes *et al.,* 2022). Hain *et al.* (1992) suggested calving occurs in the mid-Atlantic region from October through January, yet this remains to be confirmed. However, given the more southerly location of the Virginia Lease Area (located approximately 516 km (320.6 mi) away from the Montauk Point BIA (2,933 km^2 (724,760.1 acres); Hain *et al.,* 1992; LaBrecque *et al.,* 2015) and approximately 695 km (431.9 mi) from the southern Gulf of Maine BIA (18,015 km^2; 4,451,603.4 acres). Therefore, there would be no overlap from the CVOW–C project with either of the fin whale feeding BIAs.

Minke Whale

Minke whales are common and widely distributed throughout the U.S. Atlantic EEZ (Cetacean and Turtle Assessment Program (CETAP), 1982; Hayes *et al.,* 2022), although their distribution has a strong seasonal component. Individuals have often been detected acoustically in shelf waters from spring to fall and more often detected in deeper offshore waters from winter to spring (Risch *et al.,* 2013). Minke whales are abundant in New England waters from May through September (Pittman *et al.,* 2006; Waring *et al.,* 2014), yet largely absent from these areas during the winter, suggesting the possible existence of a migratory corridor (LaBrecque *et al.,* 2015). A migratory route for minke whales transiting between northern feeding grounds and southern breeding areas may exist to the east of the proposed project area, as minke whales may track warmer waters along the continental shelf while migrating (Risch *et al.,* 2014). Overall, minke whale use of the project area is likely highest during winter months when foundation installation would not be occurring. No mating or calving grounds have been identified along the U.S. Atlantic coast (LaBrecque *et al.,* 2015).

There are two minke whale feeding BIAs identified in the southern and southwestern section of the Gulf of Maine, including Georges Bank, the Great South Channel, Cape Cod Bay and Massachusetts Bay, Stellwagen Bank, Cape Anne, and Jeffreys Ledge from March through November, annually (LeBrecque *et al.,* 2015). However, these BIAs are located north of the CVOW–C project area, at approximately 656 km (407.6 mi) from the CVOW–C project area to the most southern BIA and would not overlap the CVOW–C project area.

Since January 2017, elevated minke whale mortalities detected along the Atlantic coast from Maine through South Carolina resulted in the declaration of a UME. As of April 13, 2023, a total of 142 minke whales have stranded during this UME. Full or partial necropsy examinations were conducted on more than 60 percent of the whales. Preliminary findings have shown evidence of human interactions or infectious disease in several of the whales, but these findings are not consistent across all of the whales examined, so more research is needed. This UME has been declared non-active and is pending closure. More information is available at: *https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2022-minke-whale-unusual-mortality-event-along-atlantic-coast.*

Sei Whale

The Nova Scotia stock of sei whales can be found in deeper waters of the continental shelf edge of the eastern United States and northeastward to south of Newfoundland (Mitchell, 1975; Hain *et al.,* 1985; Hayes *et al.,* 2022). During spring and summer, the stock is mainly concentrated in northern feeding areas, including the Scotian Shelf (Mitchell and Chapman, 1977), the Gulf of Maine, Georges Bank, the Northeast Channel, and south of Nantucket (CETAP, 1982; Kraus *et al.,* 2016; Roberts *et al.,* 2016; Palka *et al.,* 2017; Cholewiak *et al.,* 2018; Hayes *et al.,* 2022). Sei whales have been detected acoustically along the Atlantic Continental Shelf and Slope from south of Cape Hatteras, North Carolina to the Davis Strait, with acoustic occurrence increasing in the mid-Atlantic region since 2010 (Davis *et al.,* 2020). Although their migratory movements are not well understood, sei whales are believed to migrate north in June and July to feeding areas and south in September and October to breeding areas (Mitchell, 1975; CETAP, 1982; Davis *et al.,* 2020). Davis *et al.* (2020) acoustically detected sei whales in offshore waters of the mid-Atlantic region during the winter months. Very few sei whales were detected in the mid-Atlantic during the summer (the primary time of year when foundation installation would be occurring), with the exception of a detection that lasted for two days off Virginia. Although sei whales generally occur offshore, individuals may also move into shallower, more inshore waters (Payne *et al.,* 1990; Halpin *et al.,* 2009; Hayes *et al.,* 2022).

A sei whale feeding BIA occurs in New England waters from May through November (LaBrecque *et al.,* 2015). This BIA is located approximately 600 km (372.8 mi) northeast of the project area and is not expected to be impacted by project activities related to CVOW–C.

Phocid Seals

Since June 2022, elevated numbers of harbor seal and gray seal mortalities have occurred across the southern and central coast of Maine. This event has been declared a UME. Preliminary testing of samples has found some harbor and gray seals positive for highly pathogenic avian influenza. While the UME is not occurring in the CVOW–C project area, the populations affected by the UME are the same as those potentially affected by the project.

However, due to the two states being approximately 677.6 km (421 mi) apart, by water (from the most northern point of Virginia to the most southern point of Maine), NMFS does not expect that this UME would be further conflated by the proposed activities related to the CVOW–C project. Information on this UME is available online at: *https://www.fisheries.noaa.gov/2022-2023-pinniped-unusual-mortality-event-along-maine-coast*.

The above event was preceded by a different UME, occurring from 2018–2020 (closure of the 2018–2020 UME is pending). Beginning in July 2018, elevated numbers of harbor seal and gray seal mortalities occurred across Maine, New Hampshire, and Massachusetts. Additionally, stranded seals have shown clinical signs as far south as Virginia, although not in elevated numbers, therefore the UME investigation encompassed all seal strandings from Maine to Virginia. A total of 3,152 reported strandings (of all species) occurred from July 1, 2018, through March 13, 2020. Full or partial necropsy examinations have been conducted on some of the seals and samples have been collected for testing. Based on tests conducted thus far, the main pathogen found in the seals is phocine distemper virus. NMFS is performing additional testing to identify any other factors that may be involved in this UME, which is pending closure. Information on this UME is available online at: *https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-life-distress/2018-2020-pinniped-unusual-mortality-event-along*.

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Current data indicate that not all marine mammal species have equal hearing capabilities (*e.g.,* Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007) recommended that marine mammals be divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.,* low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65 decibel (dB) threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. Marine mammal hearing groups and their associated hearing ranges are provided in Table 8.

TABLE 8—MARINE MAMMAL HEARING GROUPS

[NMFS, 2018]

Hearing group	Generalized hearing range *
Low-frequency (LF) cetaceans (baleen whales)	7 Hz to 35 kHz.
Mid-frequency (MF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz.
High-frequency (HF) cetaceans (true porpoises, *Kogia,* river dolphins, cephalorhynchid, *Lagenorhynchus cruciger* & *L. australis*).	275 Hz to 160 kHz.
Phocid pinnipeds (PW) (underwater) (true seals)	50 Hz to 86 kHz.

* Represents the generalized hearing range for the entire group as a composite (*i.e.,* all species within the group), where individual species' hearing ranges are typically not as broad. Generalized hearing range chosen based on ~65 dB threshold from normalized composite audiogram, with the exception for lower limits for LF cetaceans (Southall *et al.,* 2007) and PW pinniped (approximation).

The pinniped functional hearing group was modified from Southall *et al.* (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Hemilä *et al.,* 2006; Kastelein *et al.,* 2009; Reichmuth and Holt, 2013).

For more detail concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of available information. Twenty-one marine mammal species (19 cetacean species (5 mysticetes and 14 odontocetes) and 2 pinniped species (both phocid), consisting of 22 total stocks) have the reasonable potential to co-occur with the proposed project activities (Table 7).

NMFS notes that in 2019, Southall *et al.* recommended new names for hearing groups that are widely recognized. However, this new hearing group classification does not change the weighting functions or acoustic thresholds (*i.e.,* the weighting functions and thresholds in Southall *et al.* (2019) are identical to NMFS 2018 Revised Technical Guidance). When NMFS updates our Technical Guidance, we will be adopting the updated Southall *et al.* (2019) hearing group classification.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

This section includes a summary and discussion of the ways that components of the specified activity may impact marine mammals and their habitat. The Estimated Take of Marine Mammals section later in this document includes a quantitative analysis of the number of individuals that are expected to be taken by this activity. The Negligible Impact Analysis and Determination section considers the content of this section, the Estimated Take of Marine Mammals section, and the Proposed Mitigation section, to draw conclusions regarding the likely impacts of these activities on the reproductive success or survivorship of individuals and how those impacts on individuals are likely to impact marine mammal species or stocks. General background information on marine mammal hearing was provided previously (see the Description of Marine Mammals in the Area of Specified Activities section). Here, the potential effects of sound on marine mammals are discussed.

Dominion Energy has requested authorization to take marine mammals incidental to construction activities associated within the CVOW–C project area. In the ITA application, Dominion Energy presented analyses of potential impacts to marine mammals from use of acoustic sources. NMFS carefully reviewed the information provided by Dominion Energy and independently

reviewed applicable scientific research and literature and other information to evaluate the potential effects of Dominion Energy's activities on marine mammals.

The proposed activities include the placement of up to 179 permanent foundations (176 WTGs and 3 OSSs), temporary nearshore cable landfall activities (*i.e.,* cofferdams and goal posts), and site characterization surveys (*i.e.,* HRG surveys). There are a variety of types and degrees of effects to marine mammals, prey species, and habitat that could occur as a result of the project. Below we provide a brief description of the types of sound sources that would be used in the project, the types of impacts that can potentially result from these sources and types of activities, and a brief discussion of the anticipated impacts on marine mammals from the CVOW–C project specifically, with consideration of the proposed mitigation measures.

Description of Sound Sources

This section contains a brief technical background on sound, on the characteristics of certain sound types, and on metrics used in this proposal inasmuch as the information is relevant to the specified activity and to a discussion of the potential effects of the specified activity on marine mammals found later in this document. For general information on sound and its interaction with the marine environment, please see, *e.g.,* Au and Hastings (2008); Richardson *et al.* (1995); Urick (1983) as well as the Discovery of Sound in the Sea (DOSITS) website at *https://dosits.org/*.

Sound is a vibration that travels as an acoustic wave through a medium such as a gas, liquid or solid. Sound waves alternately compress and decompress the medium as the wave travels. These compressions and decompressions are detected as changes in pressure by aquatic life and man-made sound receptors such as hydrophones (underwater microphones). In water, sound waves radiate in a manner similar to ripples on the surface of a pond and may be either directed in a beam (narrow beam or directional sources) or sound beams may radiate in all directions (omnidirectional sources).

Sound travels in water more efficiently than almost any other form of energy, making the use of acoustics ideal for the aquatic environment and its inhabitants. In seawater, sound travels at roughly 1,500 meters per second (m/s). In air, sound waves travel much more slowly at about 340 m/s. However, the speed of sound can vary by a small amount based on characteristics of the transmission medium such as water temperature and salinity.

The basic components of a sound wave are frequency, wavelength, velocity, and amplitude. Frequency is the number of pressure waves that pass by a reference point per unit of time and is measured in Hz or cycles per second. Wavelength is the distance between two peaks or corresponding points of a sound wave (length of one cycle). Higher frequency sounds have shorter wavelengths than lower frequency sounds and typically attenuate (decrease) more rapidly except in certain cases in shallower water. The intensity (or amplitude) of sounds are measured in decibels (dB), which are a relative unit of measurement that is used to express the ratio of one value of a power or field to another. Decibels are measured on a logarithmic scale, so a small change in dB corresponds to large changes in sound pressure. For example, a 10 dB increase is a ten-fold increase in acoustic power. A 20 dB increase is then a 100-fold increase in power and a 30 dB increase is a 1000-fold increase in power. However, a ten-fold increase in acoustic power does not mean that the sound is perceived as being 10 times louder. Decibels are a relative unit comparing two pressures; therefore, a reference pressure must always be indicated. For underwater sound, this is 1 microPascal (μPa). For in-air sound, the reference pressure is 20 microPascal (μPa). The amplitude of a sound can be presented in various ways; however, NMFS typically considers three metrics.

Sound exposure level (SEL) represents the total energy in a stated frequency band over a stated time interval or event and considers both amplitude and duration of exposure (represented as dB re 1 μPa2-s). SEL is a cumulative metric; it can be accumulated over a single pulse (for pile driving this is often referred to as single-strike SEL; SELss) or calculated over periods containing multiple pulses (SEL_{cum}). Cumulative SEL represents the total energy accumulated by a receiver over a defined time window or during an event. The SEL metric is useful because it allows sound exposures of different durations to be related to one another in terms of total acoustic energy. The duration of a sound event and the number of pulses, however, should be specified as there is no accepted standard duration over which the summation of energy is measured. Sounds are typically classified by their spectral and temporal properties.

Root mean square (rms) is the quadratic mean sound pressure over the duration of an impulse. Root mean square is calculated by squaring all of the sound amplitudes, averaging the squares, and then taking the square root of the average (Urick, 1983). Root mean square accounts for both positive and negative values; squaring the pressures makes all values positive so that they may be accounted for in the summation of pressure levels (Hastings and Popper, 2005). This measurement is often used in the context of discussing behavioral effects, in part because behavioral effects, which often result from auditory cues, may be better expressed through averaged units than by peak pressures.

Peak sound pressure (also referred to as zero-to-peak sound pressure or 0-pk) is the maximum instantaneous sound pressure measurable in the water at a specified distance from the source, and is represented in the same units as the rms sound pressure. Along with SEL, this metric is used in evaluating the potential for PTS (permanent threshold shift) and TTS (temporary threshold shift).

Sounds can be either impulsive or non-impulsive. The distinction between these two sound types is important because they have differing potential to cause physical effects, particularly with regard to hearing (*e.g.,* Ward, 1997 in Southall *et al.,* 2007). Please see NMFS *et al.* (2018) and Southall *et al.* (2007, 2019) for an in-depth discussion of these concepts. Impulsive sound sources (*e.g.,* airguns, explosions, gunshots, sonic booms, impact pile driving) produce signals that are brief (typically considered to be less than 1 second), broadband, atonal transients (American National Standards Institute (ANSI), 1986, 2005; Harris, 1998; National Institute for Occupational Safety and Health (NIOSH), 1998; International Organization for Standardization (ISO), 2003) and occur either as isolated events or repeated in some succession. Impulsive sounds are all characterized by a relatively rapid rise from ambient pressure to a maximal pressure value followed by a rapid decay period that may include a period of diminishing, oscillating maximal and minimal pressures, and generally have an increased capacity to induce physical injury as compared with sounds that lack these features. Impulsive sounds are typically intermittent in nature.

Non-impulsive sounds can be tonal, narrowband, or broadband, brief or prolonged, and may be either continuous or intermittent (ANSI, 1995; NIOSH, 1998). Some of these non-impulsive sounds can be transient signals of short duration but without the essential properties of pulses (*e.g.,* rapid rise time). Examples of non-impulsive

sounds include those produced by vessels, aircraft, machinery operations such as drilling or dredging, vibratory pile driving, and active sonar systems.

Sounds are also characterized by their temporal component. Continuous sounds are those whose sound pressure level remains above that of the ambient sound with negligibly small fluctuations in level (NIOSH, 1998; ANSI, 2005) while intermittent sounds are defined as sounds with interrupted levels of low or no sound (NIOSH, 1998). NMFS identifies Level B harassment thresholds based on if a sound is continuous or intermittent.

Even in the absence of sound from the specified activity, the underwater environment is typically loud due to ambient sound, which is defined as environmental background sound levels lacking a single source or point (Richardson *et al.,* 1995). The sound level of a region is defined by the total acoustical energy being generated by known and unknown sources. These sources may include physical (*e.g.,* wind and waves, earthquakes, ice, atmospheric sound), biological (*e.g.,* sounds produced by marine mammals, fish, and invertebrates), and anthropogenic (*e.g.,* vessels, dredging, construction) sound. A number of sources contribute to ambient sound, including wind and waves, which are a main source of naturally occurring ambient sound for frequencies between 200 Hz and 50 kHz (International Council for the Exploration of the Sea (ICES), 1995). In general, ambient sound levels tend to increase with increasing wind speed and wave height. Precipitation can become an important component of total sound at frequencies above 500 Hz and possibly down to 100 Hz during quiet times. Marine mammals can contribute significantly to ambient sound levels as can some fish and snapping shrimp. The frequency band for biological contributions is from approximately 12 Hz to over 100 kHz. Sources of ambient sound related to human activity include transportation (surface vessels), dredging and construction, oil and gas drilling and production, geophysical surveys, sonar, and explosions. Vessel noise typically dominates the total ambient sound for frequencies between 20 and 300 Hz. In general, the frequencies of anthropogenic sounds are below 1 kHz, and if higher frequency sound levels are created, they attenuate rapidly.

The sum of the various natural and anthropogenic sound sources that comprise ambient sound at any given location and time depends not only on the source levels (as determined by current weather conditions and levels of biological and human activity) but also on the ability of sound to propagate through the environment. In turn, sound propagation is dependent on the spatially and temporally varying properties of the water column and sea floor and is frequency-dependent. As a result of the dependence on a large number of varying factors, ambient sound levels can be expected to vary widely over both coarse and fine spatial and temporal scales. Sound levels at a given frequency and location can vary by 10–20 dB from day to day (Richardson *et al.,* 1995). The result is that, depending on the source type and its intensity, sound from the specified activity may be a negligible addition to the local environment or could form a distinctive signal that may affect marine mammals. Underwater ambient sound in the Atlantic Ocean offshore of Virginia comprises sounds produced by a number of natural and anthropogenic sources. Human-generated sound is a significant contributor to the acoustic environment in the project location.

Pile driving sounds are broadband, omni-directional sound sources. Pile driving noise has the potential to result in harassment to marine mammals if the animal is close enough to the sound source (with the distances necessary to cause harassment dependent on source levels and transmission loss rates). HRG sources; however, are more complex as they vary widely (*e.g.,* side scan sonars, sub-bottom profilers, boomers, and sparkers). Recently, Ruppel *et al.* (2022) categorized HRG sources into four tiers based on their potential to affect marine animals. All HRG sources proposed for use by Dominion Energy fall into the Tier 3 or Tier 4 category (note Tier 1 is the most impactful category containing high-energy airguns). Tier 4 includes most high-resolution geophysical, oceanographic, and communication/tracking sources, which are considered unlikely to result in incidental take of marine mammals and therefore termed *de minimis.* Tier 3 covers most remaining non-airgun seismic sources, which either have characteristics that do not meet the *de minimis* category (*e.g.,* some sparkers), but have anticipated impacts less than airguns and for which additional mitigation may in some cases be able to avoid the likelihood of take, or could not be fully evaluated in the paper (*e.g.,* bubble guns, some boomers). Some sparkers fell into Tier 3, as the study found that most sparkers lack the frequency, beamwidth, and degree of exposure characteristics to automatically meet the *de minimis* criteria.

Potential Effects of Underwater Sound on Marine Mammals and Their Habitat

Anthropogenic sounds cover a broad range of frequencies and sound levels and can have a range of highly variable impacts on marine life from none or minor to potentially severe responses depending on received levels, duration of exposure, behavioral context, and various other factors. Broadly, underwater sound from active acoustic sources, such as those in the CVOW–C project, can potentially result in one or more of the following: temporary or permanent hearing impairment, non-auditory physical or physiological effects, behavioral disturbance, stress, and masking (Richardson *et al.,* 1995; Gordon *et al.,* 2003; Nowacek *et al.,* 2007; Southall *et al.,* 2007; Götz *et al.,* 2009). Non-auditory physiological effects or injuries that theoretically might occur in marine mammals exposed to high level underwater sound or as a secondary effect of extreme behavioral reactions (*e.g.,* change in dive profile as a result of an avoidance reaction) caused by exposure to sound include neurological effects, bubble formation, resonance effects, and other types of organ or tissue damage (Cox *et al.,* 2006; Southall *et al.,* 2007; Zimmer and Tyack, 2007; Tal *et al.,* 2015).

In general, the degree of effect of an acoustic exposure is intrinsically related to the signal characteristics, received level, distance from the source, and duration of the sound exposure, in addition to the contextual factors of the receiver (*e.g.,* behavioral state at time of exposure, age class, *etc.*). In general, sudden, high level sounds can cause hearing loss as can longer exposures to lower level sounds. Moreover, any temporary or permanent loss of hearing will occur almost exclusively for noise within an animal's hearing range. We describe below the specific manifestations of acoustic effects that may occur based on the activities proposed by Dominion Energy.

Richardson *et al.* (1995) described zones of increasing intensity of effect that might be expected to occur in relation to distance from a source and assuming that the signal is within an animal's hearing range. First (at the greatest distance) is the area within which the acoustic signal would be audible (potentially perceived) to the animal but not strong enough to elicit any overt behavioral or physiological response. The next zone (closer to the receiving animal) corresponds with the area where the signal is audible to the animal and of sufficient intensity to elicit behavioral or physiological responsiveness. The third is a zone

within which, for signals of high intensity, the received level is sufficient to potentially cause discomfort or tissue damage to auditory or other systems. Overlaying these zones to a certain extent is the area within which masking (*i.e.,* when a sound interferes with or masks the ability of an animal to detect a signal of interest that is above the absolute hearing threshold) may occur; the masking zone may be highly variable in size.

Below, we provide additional detail regarding potential impacts on marine mammals and their habitat from noise in general, starting with hearing impairment, as well as from the specific activities Dominion Energy plans to conduct, to the degree it is available (noting that there is limited information regarding the impacts of offshore wind construction on marine mammals).

Hearing Threshold Shift

Marine mammals exposed to high-intensity sound or to lower-intensity sound for prolonged periods can experience hearing threshold shift (TS), which NMFS defines as a change, usually an increase, in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level expressed in decibels (NMFS, 2018). Threshold shifts can be permanent, in which case there is an irreversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range or temporary, in which there is reversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range and the animal's hearing threshold would fully recover over time (Southall *et al.,* 2019). Repeated sound exposure that leads to TTS could cause PTS.

When PTS occurs, there can be physical damage to the sound receptors in the ear (*i.e.,* tissue damage) whereas TTS represents primarily tissue fatigue and is reversible (Henderson *et al.,* 2008). In addition, other investigators have suggested that TTS is within the normal bounds of physiological variability and tolerance and does not represent physical injury (*e.g.,* Ward, 1997; Southall *et al.,* 2019). Therefore, NMFS does not consider TTS to constitute auditory injury.

Relationships between TTS and PTS thresholds have not been studied in marine mammals, and there is no PTS data for cetaceans. However, such relationships are assumed to be similar to those in humans and other terrestrial mammals. Noise exposure can result in either a permanent shift in hearing thresholds from baseline (PTS; a 40 dB threshold shift approximates a PTS onset; *e.g.,* Kryter *et al.,* 1966; Miller, 1974; Henderson *et al.,* 2008) or a temporary, recoverable shift in hearing that returns to baseline (a 6 dB threshold shift approximates a TTS onset; *e.g.,* Southall *et al.,* 2019). Based on data from terrestrial mammals, a precautionary assumption is that the PTS thresholds, expressed in the unweighted peak sound pressure level metric (PK), for impulsive sounds (such as impact pile driving pulses) are at least 6 dB higher than the TTS thresholds and the weighted PTS cumulative sound exposure level thresholds are 15 (impulsive sound) to 20 (non-impulsive sounds) dB higher than TTS cumulative sound exposure level thresholds (Southall *et al.,* 2019). Given the higher level of sound or longer exposure duration necessary to cause PTS as compared with TTS, PTS is less likely to occur as a result of these activities, but it is possible and a small amount has been proposed for authorization for several species.

TTS is the mildest form of hearing impairment that can occur during exposure to sound, with a TTS of 6 dB considered the minimum threshold shift clearly larger than any day-to-day or session-to-session variation in a subject's normal hearing ability (Schlundt *et al.,* 2000; Finneran *et al.,* 2000; Finneran *et al.,* 2002). While experiencing TTS, the hearing threshold rises, and a sound must be at a higher level in order to be heard. In terrestrial and marine mammals, TTS can last from minutes or hours to days (in cases of strong TTS). In many cases, hearing sensitivity recovers rapidly after exposure to the sound ends. There is data on sound levels and durations necessary to elicit mild TTS for marine mammals, but recovery is complicated to predict and dependent on multiple factors.

Marine mammal hearing plays a critical role in communication with conspecifics, and interpretation of environmental cues for purposes such as predator avoidance and prey capture. Depending on the degree (elevation of threshold in dB), duration (*i.e.,* recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious depending on the degree of interference of marine mammals hearing. For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that occurs during a time where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during time when communication is critical (*e.g.,* for successful mother/calf interactions, consistent detection of prey) could have more serious impacts.

Currently, TTS data only exist for four species of cetaceans (bottlenose dolphin, beluga whale (*Delphinapterus leucas*), harbor porpoise, and Yangtze finless porpoise (*Neophocaena asiaeorientalis*)) and six species of pinnipeds (northern elephant seal (*Mirounga angustirostris*), harbor seal, ring seal, spotted seal, bearded seal, and California sea lion (*Zalophus californianus*)) that were exposed to a limited number of sound sources (*i.e.,* mostly tones and octave-band noise with limited number of exposure to impulsive sources such as seismic airguns or impact pile driving) in laboratory settings (Southall *et al.,* 2019). There is currently no data available on noise-induced hearing loss for mysticetes. For summaries of data on TTS or PTS in marine mammals or for further discussion of TTS or PTS onset thresholds, please see Southall *et al.* (2019) and NMFS (2018).

Recent studies with captive odontocete species (bottlenose dolphin, harbor porpoise, beluga, and false killer whale) have observed increases in hearing threshold levels when individuals received a warning sound prior to exposure to a relatively loud sound (Nachtigall and Supin, 2013, 2015; Nachtigall *et al.,* 2016a, 2016b, 2016c; Finneran, 2018; Nachtigall *et al.,* 2018). These studies suggest that captive animals have a mechanism to reduce hearing sensitivity prior to impending loud sounds. Hearing change was observed to be frequency dependent and Finneran (2018) suggests hearing attenuation occurs within the cochlea or auditory nerve. Based on these observations on captive odontocetes, the authors suggest that wild animals may have a mechanism to self-mitigate the impacts of noise exposure by dampening their hearing during prolonged exposures of loud sound or if conditioned to anticipate intense sounds (Finneran, 2018, Nachtigall *et al.,* 2018).

Behavioral Effects

Exposure of marine mammals to sound sources can result in, but is not limited to, no response or any of the following observable responses: increased alertness; orientation or attraction to a sound source; vocal modifications; cessation of feeding; cessation of social interaction; alteration of movement or diving behavior; habitat abandonment (temporary or permanent);

and in severe cases, panic, flight, stampede, or stranding, potentially resulting in death (Southall *et al.,* 2007). A review of marine mammal responses to anthropogenic sound was first conducted by Richardson (1995). More recent reviews address studies conducted since 1995 and focused on observations where the received sound level of the exposed marine mammal(s) was known or could be estimated (Nowacek *et al.,* 2007; DeRuiter *et al.,* 2012 and 2013; Ellison *et al.,* 2012; Gomez *et al.,* 2016). Gomez *et al.* (2016) conducted a review of the literature considering the contextual information of exposure in addition to received level and found that higher received levels were not always associated with more severe behavioral responses and vice versa. Southall *et al.* (2021) states that results demonstrate that some individuals of different species display clear yet varied responses, some of which have negative implications while others appear to tolerate high levels and that responses may not be fully predictable with simple acoustic exposure metrics (*e.g.,* received sound level). Rather, the authors state that differences among species and individuals along with contextual aspects of exposure (*e.g.,* behavioral state) appear to affect response probability. Behavioral responses to sound are highly variable and context-specific. Many different variables can influence an animal's perception of and response to (nature and magnitude) an acoustic event. An animal's prior experience with a sound or sound source affects whether it is less likely (habituation) or more likely (sensitization) to respond to certain sounds in the future (animals can also be innately predisposed to respond to certain sounds in certain ways) (Southall *et al.,* 2019). Related to the sound itself, the perceived nearness of the sound, bearing of the sound (approaching vs. retreating), the similarity of a sound to biologically relevant sounds in the animal's environment (*i.e.,* calls of predators, prey, or conspecifics), and familiarity of the sound may affect the way an animal responds to the sound (Southall *et al.,* 2007, DeRuiter *et al.,* 2013). Individuals (of different age, gender, reproductive status, *etc.*) among most populations will have variable hearing capabilities, and differing behavioral sensitivities to sounds that will be affected by prior conditioning, experience, and current activities of those individuals. Often, specific acoustic features of the sound and contextual variables (*i.e.,* proximity, duration, or recurrence of the sound or the current behavior that the marine mammal is engaged in or its prior experience), as well as entirely separate factors such as the physical presence of a nearby vessel, may be more relevant to the animal's response than the received level alone. Overall, the variability of responses to acoustic stimuli depends on the species receiving the sound, the sound source, and the social, behavioral, or environmental contexts of exposure (*e.g.,* DeRuiter *et al.,* 2012). For example, Goldbogen *et al.* (2013) demonstrated that individual behavioral state was critically important in determining response of blue whales to sonar, noting that some individuals engaged in deep (greater than 50 m) feeding behavior had greater dive responses than those in shallow feeding or non-feeding conditions. Some blue whales in the Goldbogen *et al.* (2013) study that were engaged in shallow feeding behavior demonstrated no clear changes in diving or movement even when received levels were high (~160 dB re 1μPa) for exposures to 3–4 kHz sonar signals, while deep feeding and non-feeding whales showed a clear response at exposures at lower received levels of sonar and pseudorandom noise. Southall *et al.* (2011) found that blue whales had a different response to sonar exposure depending on behavioral state, more pronounced when deep feeding/travel modes than when engaged in surface feeding.

With respect to distance influencing disturbance, DeRuiter *et al.* (2013) examined behavioral responses of Cuvier's beaked whales to mid-frequency sonar and found that whales responded strongly at low received levels (89–127 dB re 1μPa) by ceasing normal fluking and echolocation, swimming rapidly away, and extending both dive duration and subsequent non-foraging intervals when the sound source was 3.4–9.5 km away. Importantly, this study also showed that whales exposed to a similar range of received levels (78–106 dB *re 1μPa*) from distant sonar exercises (118 km away) did not elicit such responses, suggesting that context may moderate reactions. Thus, distance from the source is an important variable in influencing the type and degree of behavioral response and this variable is independent of the effect of received levels (*e.g.,* DeRuiter *et al.,* 2013; Dunlop *et al.,* 2017a, 2017b; Falcone *et al.,* 2017; Dunlop *et al.,* 2018; Southall *et al.,* 2019).

Ellison *et al.* (2012) outlined an approach to assessing the effects of sound on marine mammals that incorporates contextual-based factors. The authors recommend considering not just the received level of sound but also the activity the animal is engaged in at the time the sound is received, the nature and novelty of the sound (*i.e.,* is this a new sound from the animal's perspective), and the distance between the sound source and the animal. They submit that this ''exposure context,'' as described, greatly influences the type of behavioral response exhibited by the animal. Forney *et al.* (2017) also point out that an apparent lack of response (*e.g.,* no displacement or avoidance of a sound source) may not necessarily mean there is no cost to the individual or population, as some resources or habitats may be of such high value that animals may choose to stay, even when experiencing stress or hearing loss. Forney *et al.* (2017) recommend considering both the costs of remaining in an area of noise exposure such as TTS, PTS, or masking, which could lead to an increased risk of predation or other threats or a decreased capability to forage, and the costs of displacement, including potential increased risk of vessel strike, increased risks of predation or competition for resources, or decreased habitat suitable for foraging, resting, or socializing. This sort of contextual information is challenging to predict with accuracy for ongoing activities that occur over large spatial and temporal expanses. However, distance is one contextual factor for which data exist to quantitatively inform a take estimate, and the method for predicting Level B harassment in this rule does consider distance to the source. Other factors are often considered qualitatively in the analysis of the likely consequences of sound exposure where supporting information is available.

Behavioral change, such as disturbance manifesting in lost foraging time, in response to anthropogenic activities is often assumed to indicate a biologically significant effect on a population of concern. However, individuals may be able to compensate for some types and degrees of shifts in behavior, preserving their health and thus their vital rates and population dynamics. For example, New *et al.* (2013) developed a model simulating the complex social, spatial, behavioral and motivational interactions of coastal bottlenose dolphins in the Moray Firth, Scotland, to assess the biological significance of increased rate of behavioral disruptions caused by vessel traffic. Despite a modeled scenario in which vessel traffic increased from 70 to 470 vessels a year (a six-fold increase in vessel traffic) in response to the

construction of a proposed offshore renewables' facility, the dolphins' behavioral time budget, spatial distribution, motivations and social structure remained unchanged. Similarly, two bottlenose dolphin populations in Australia were also modeled over 5 years against a number of disturbances (Reed *et al.,* 2020) and results indicate that habitat/noise disturbance had little overall impact on population abundances in either location, even in the most extreme impact scenarios modeled.

Friedlaender *et al.* (2016) provided the first integration of direct measures of prey distribution and density variables incorporated into across-individual analyses of behavior responses of blue whales to sonar and demonstrated a fivefold increase in the ability to quantify variability in blue whale diving behavior. These results illustrate that responses evaluated without such measurements for foraging animals may be misleading, which again illustrates the context-dependent nature of the probability of response.

The following subsections provide examples of behavioral responses that give an idea of the variability in behavioral responses that would be expected given the differential sensitivities of marine mammal species to sound, contextual factors, and the wide range of potential acoustic sources to which a marine mammal may be exposed. Behavioral responses that could occur for a given sound exposure should be determined from the literature that is available for each species, or extrapolated from closely related species when no information exists, along with contextual factors.

Avoidance and Displacement

Avoidance is the displacement of an individual from an area or migration path as a result of the presence of a sound or other stressors and is one of the most obvious manifestations of disturbance in marine mammals (Richardson *et al.,* 1995). For example, gray whales (E*schrichtius robustus*) and humpback whales are known to change direction—deflecting from customary migratory paths—in order to avoid noise from airgun surveys (Malme *et al.,* 1984; Dunlop *et al.,* 2018). Avoidance is qualitatively different from the flight response but also differs in the magnitude of the response (*i.e.,* directed movement, rate of travel, *etc.*). Avoidance may be short-term with animals returning to the area once the noise has ceased (*e.g.,* Malme *et al.,* 1984; Bowles *et al.,* 1994; Goold, 1996; Stone *et al.,* 2000; Morton and Symonds, 2002; Gailey *et al.,* 2007; Dähne *et al.,* 2013; Russel *et al.,* 2016). Longer-term displacement is possible, however, which may lead to changes in abundance or distribution patterns of the affected species in the affected region if habituation to the presence of the sound does not occur (*e.g.,* Blackwell *et al.,* 2004; Bejder *et al.,* 2006; Teilmann *et al.,* 2006; Forney *et al.,* 2017). Avoidance of marine mammals during the construction of offshore wind facilities (specifically, impact pile driving) has been documented in the literature with some significant variation in the temporal and spatial degree of avoidance and with most studies focused on harbor porpoises as one of the most common marine mammals in European waters (*e.g.,* Tougaard *et al.,* 2009; Dähne *et al.,* 2013; Thompson *et al.,* 2013; Russell *et al.,* 2016; Brandt *et al.,* 2018).

Available information on impacts to marine mammals from pile driving associated with offshore wind is limited to information on harbor porpoises and seals, as the vast majority of this research has occurred at European offshore wind projects where large whales and other odontocete species are uncommon. Harbor porpoises and harbor seals are considered to be behaviorally sensitive species (*e.g.,* Southall *et al.,* 2007) and the effects of wind farm construction in Europe on these species has been well documented. These species have received particular attention in European waters due to their abundance in the North Sea (Hammond *et al.,* 2002; Nachtsheim *et al.,* 2021). A summary of the literature on documented effects of wind farm construction on harbor porpoise and harbor seals is described below.

Brandt *et al.* (2016) summarized the effects of the construction of eight offshore wind projects within the German North Sea (*i.e.,* Alpha Ventus, BARD Offshore I, Borkum West II, DanTysk, Global Tech I, Meerwind Süd/Ost, Nordsee Ost, and Riffgat) between 2009 and 2013 on harbor porpoises, combining PAM data from 2010–2013 and aerial surveys from 2009–2013 with data on noise levels associated with pile driving. Results of the analysis revealed significant declines in porpoise detections during pile driving when compared to 25–48 hours before pile driving began, with the magnitude of decline during pile driving clearly decreasing with increasing distances to the construction site. During the majority of projects, significant declines in detections (by at least 20 percent) were found within at least 5–10 km of the pile driving site, with declines at up to 20–30 km of the pile driving site documented in some cases. Similar results demonstrating the long-distance displacement of harbor porpoises (18–25 km) and harbor seals (up to 40 km) during impact pile driving have also been observed during the construction at multiple other European wind farms (Tougaard *et al.,* 2009; Bailey *et al.,* 2010; Dähne *et al.,* 2013; Lucke *et al.,* 2012; Haleters *et al.,* 2015).

While harbor porpoises and seals tend to move several kilometers away from wind farm construction activities, the duration of displacement has been documented to be relatively temporary. In two studies at Horns Rev II using impact pile driving, harbor porpoise returned within 1–2 days following cessation of pile driving (Tougaard *et al.,* 2009, Brandt *et al.,* 2011). Similar recovery periods have been noted for harbor seals off England during the construction of four wind farms (Brasseur *et al.,* 2010; Carroll *et al.,* 2010; Hamre *et al.,* 2011; Hastie *et al.,* 2015; Russell *et al.,* 2016). In some cases, an increase in harbor porpoise activity has been documented inside wind farm areas following construction (*e.g.,* Lindeboom *et al.,* 2011). Other studies have noted longer term impacts after impact pile driving. Near Dogger Bank in Germany, harbor porpoises continued to avoid the area for over 2 years after construction began (Gilles *et al.,* 2009). Approximately 10 years after construction of the Nysted wind farm, harbor porpoise abundance had not recovered to the original levels previously seen, although the echolocation activity was noted to have been increasing when compared to the previous monitoring period (Teilmann and Carstensen, 2012). However, overall, there are no indications for a population decline of harbor porpoises in European waters (*e.g.,* Brandt *et al.,* 2016). Notably, where significant differences in displacement and return rates have been identified for these species, the occurrence of secondary project-specific influences such as use of mitigation measures (*e.g.,* bubble curtains, acoustic deterrent devices (ADDs)) or the manner in which species use the habitat in the project area are likely the driving factors of this variation.

NMFS notes the aforementioned studies from Europe involve installing much smaller piles than Dominion Energy proposes to install and, therefore, we anticipate noise levels from impact pile driving to be louder. For this reason, we anticipate that the greater distances of displacement observed in harbor porpoise and harbor seals documented in Europe are likely to occur off Virginia. However, we do

not anticipate any greater severity of response due to harbor porpoise and harbor seal habitat use off Virginia or population-level consequences similar to European findings. In many cases, harbor porpoises and harbor seals are resident to the areas where European wind farms have been constructed. However, off Virginia, harbor porpoises are primarily transient (with higher abundances in winter when impact pile driving would not occur) and a very small percentage of the large harbor seal population are only seasonally present with no rookeries established. In summary, we anticipate that harbor porpoise and harbor seals will likely respond to pile driving by moving several kilometers away from the source but return to typical habitat use patterns when pile driving ceases.

Some avoidance behavior of other marine mammal species has been documented to be dependent on distance from the source. As described above, DeRuiter *et al.* (2013) noted that distance from a sound source may moderate marine mammal reactions in their study of Cuvier's beaked whales (an acoustically sensitive species), which showed the whales swimming rapidly and silently away when a sonar signal was 3.4–9.5 km away while showing no such reaction to the same signal when the signal was 118 km away even though the received levels were similar. Tyack *et al.* (1983) conducted playback studies of Surveillance Towed Array Sensor System (SURTASS) low frequency active (LFA) sonar in a gray whale migratory corridor off California. Similar to North Atlantic right whales, gray whales migrate close to shore (approximately +2 kms) and are low frequency hearing specialists. The LFA sonar source was placed within the gray whale migratory corridor (approximately 2 km offshore) and offshore of most, but not all, migrating whales (approximately 4 km offshore). These locations influenced received levels and distance to the source. For the inshore playbacks, not unexpectedly, the louder the source level of the playback (*i.e.,* the louder the received level), whale avoided the source at greater distances. Specifically, when the source level was 170 dB rms and 178 dB rms, whales avoided the inshore source at ranges of several hundred meters, similar to avoidance responses reported by Malme *et al.* (1983, 1984). Whales exposed to source levels of 185 dB rms demonstrated avoidance levels at ranges of +1 km. Responses to the offshore source broadcasting at source levels of 185 and 200 dB, avoidance responses were greatly reduced. While there was observed deflection from course, in no case did a whale abandon its migratory behavior.

The signal context of the noise exposure has been shown to play an important role in avoidance responses. In a 2007–2008 Bahamas study, playback sounds of a potential predator—a killer whale—resulted in a similar but more pronounced reaction in beaked whales (an acoustically sensitive species), which included longer inter-dive intervals and a sustained straight-line departure of more than 20 km from the area (Boyd *et al.,* 2008; Southall *et al.,* 2009; Tyack *et al.,* 2011). Dominion Energy does not anticipate, and NMFS is not proposing to authorize take of beaked whales and, moreover, the sounds produced by Dominion Energy do not have signal characteristics similar to predators. Therefore we would not expect such extreme reactions to occur. Southall *et al.* 2011 found that blue whales had a different response to sonar exposure depending on behavioral state, more pronounced when deep feeding/travel modes than when engaged in surface feeding.

One potential consequence of behavioral avoidance is the altered energetic expenditure of marine mammals because energy is required to move and avoid surface vessels or the sound field associated with active sonar (Frid and Dill, 2002). Most animals can avoid that energetic cost by swimming away at slow speeds or speeds that minimize the cost of transport (Miksis-Olds, 2006), as has been demonstrated in Florida manatees (Miksis-Olds, 2006). Those energetic costs increase, however, when animals shift from a resting state, which is designed to conserve an animal's energy, to an active state that consumes energy the animal would have conserved had it not been disturbed. Marine mammals that have been disturbed by anthropogenic noise and vessel approaches are commonly reported to shift from resting to active behavioral states, which would imply that they incur an energy cost.

Forney *et al.* (2017) detailed the potential effects of noise on marine mammal populations with high site fidelity, including displacement and auditory masking, noting that a lack of observed response does not imply absence of fitness costs and that apparent tolerance of disturbance may have population-level impacts that are less obvious and difficult to document. Avoidance of overlap between disturbing noise and areas and/or times of particular importance for sensitive species may be critical to avoiding population-level impacts because (particularly for animals with high site fidelity) there may be a strong motivation to remain in the area despite negative impacts. Forney *et al.* (2017) stated that, for these animals, remaining in a disturbed area may reflect a lack of alternatives rather than a lack of effects.

A flight response is a dramatic change in normal movement to a directed and rapid movement away from the perceived location of a sound source. The flight response differs from other avoidance responses in the intensity of the response (*e.g.,* directed movement, rate of travel). Relatively little information on flight responses of marine mammals to anthropogenic signals exist, although observations of flight responses to the presence of predators have occurred (Connor and Heithaus, 1996; Frid and Dill, 2002). The result of a flight response could range from brief, temporary exertion and displacement from the area where the signal provokes flight to, in extreme cases, beaked whale strandings (Cox *et al.,* 2006; D'Amico *et al.,* 2009). However, it should be noted that response to a perceived predator does not necessarily invoke flight (Ford and Reeves, 2008), and whether individuals are solitary or in groups may influence the response. Flight responses of marine mammals have been documented in response to mobile high intensity active sonar (*e.g.,* Tyack *et al.,* 2011; DeRuiter *et al.,* 2013; Wensveen *et al.,* 2019), and more severe responses have been documented when sources are moving towards an animal or when they are surprised by unpredictable exposures (Watkins 1986; Falcone *et al.,* 2017). Generally speaking, however, marine mammals would be expected to be less likely to respond with a flight response to either stationery pile driving (which they can sense is stationery and predictable) or significantly lower-level HRG surveys, unless they are within the area ensonified above behavioral harassment thresholds at the moment the source is turned on (Watkins, 1986; Falcone *et al.,* 2017).

Diving and Foraging

Changes in dive behavior in response to noise exposure can vary widely. They may consist of increased or decreased dive times and surface intervals as well as changes in the rates of ascent and descent during a dive (*e.g.,* Frankel and Clark, 2000; Costa *et al.,* 2003; Ng and Leung, 2003; Nowacek *et al.,* 2004; Goldbogen *et al.,* 2013a, 2013b). Variations in dive behavior may reflect interruptions in biologically significant activities (*e.g.,* foraging) or they may be of little biological significance. Variations in dive behavior may also

expose an animal to potentially harmful conditions (*e.g.,* increasing the chance of ship-strike) or may serve as an avoidance response that enhances survivorship. The impact of a variation in diving resulting from an acoustic exposure depends on what the animal is doing at the time of the exposure, the type and magnitude of the response, and the context within which the response occurs (*e.g.,* the surrounding environmental and anthropogenic circumstances).

Nowacek *et al.* (2004) reported disruptions of dive behaviors in foraging North Atlantic right whales when exposed to an alerting stimulus, an action, they noted, that could lead to an increased likelihood of ship strike. The alerting stimulus was in the form of an 18 minute exposure that included three 2-minute signals played three times sequentially. This stimulus was designed with the purpose of providing signals distinct to background noise that serve as localization cues. However, the whales did not respond to playbacks of either right whale social sounds or vessel noise, highlighting the importance of the sound characteristics in producing a behavioral reaction. Although source levels for the proposed pile driving activities may exceed the received level of the alerting stimulus described by Nowacek *et al.* (2004), proposed mitigation strategies (further described in the Proposed Mitigation section) will reduce the severity of response to proposed pile driving activities. Converse to the behavior of North Atlantic right whales, Indo-Pacific humpback dolphins have been observed to dive for longer periods of time in areas where vessels were present and/or approaching (Ng and Leung, 2003). In both of these studies, the influence of the sound exposure cannot be decoupled from the physical presence of a surface vessel, thus complicating interpretations of the relative contribution of each stimulus to the response. Indeed, the presence of surface vessels, their approach, and speed of approach, seemed to be significant factors in the response of the Indo-Pacific humpback dolphins (Ng and Leung, 2003). Low frequency signals of the Acoustic Thermometry of Ocean Climate (ATOC) sound source were not found to affect dive times of humpback whales in Hawaiian waters (Frankel and Clark, 2000) or to overtly affect elephant seal dives (Costa *et al.,* 2003). They did, however, produce subtle effects that varied in direction and degree among the individual seals, illustrating the equivocal nature of behavioral effects and consequent difficulty in defining and predicting them.

Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the cessation of secondary indicators of foraging (*e.g.,* bubble nets or sediment plumes), or changes in dive behavior. As for other types of behavioral response, the frequency, duration, and temporal pattern of signal presentation, as well as differences in species sensitivity, are likely contributing factors to differences in response in any given circumstance (*e.g.,* Croll *et al.,* 2001; Nowacek *et al.,* 2004; Madsen *et al.,* 2006a; Yazvenko *et al.,* 2007; Southall *et al.,* 2019b). An understanding of the energetic requirements of the affected individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal can facilitate the assessment of whether foraging disruptions are likely to incur fitness consequences (Goldbogen *et al.,* 2013; Farmer *et al.,* 2018; Pirotta *et al.,* 2018; Southall *et al.,* 2019; Pirotta *et al.,* 2021).

Impacts on marine mammal foraging rates from noise exposure have been documented, though there is little data regarding the impacts of offshore turbine construction specifically. Several broader examples follow, and it is reasonable to expect that exposure to noise produced during the 5-years the proposed rule would be effective could have similar impacts.

Visual tracking, passive acoustic monitoring, and movement recording tags were used to quantify sperm whale behavior prior to, during, and following exposure to air gun arrays at received levels in the range 140–160 dB at distances of 7–13 km, following a phase-in of sound intensity and full array exposures at 1–13 km (Madsen *et al.,* 2006a; Miller *et al.,* 2009). Sperm whales did not exhibit horizontal avoidance behavior at the surface. However, foraging behavior may have been affected. The sperm whales exhibited 19 percent less vocal (buzz) rate during full exposure relative to post exposure, and the whale that was approached most closely had an extended resting period and did not resume foraging until the air guns had ceased firing. The remaining whales continued to execute foraging dives throughout exposure; however, swimming movements during foraging dives were six percent lower during exposure than control periods (Miller *et al.,* 2009). Miller *et al.* (2009) noted that more data are required to understand whether the differences were due to exposure or natural variation in sperm whale behavior.

Balaenopterid whales exposed to moderate low-frequency signals similar to the ATOC sound source demonstrated no variation in foraging activity (Croll *et al.,* 2001), whereas five out of six North Atlantic right whales exposed to an acoustic alarm interrupted their foraging dives (Nowacek *et al.,* 2004). Although the received SPLs were similar in the latter two studies, the frequency, duration, and temporal pattern of signal presentation were different. These factors, as well as differences in species sensitivity, are likely contributing factors to the differential response. The source levels of both the proposed construction and HRG activities exceed the source levels of the signals described by Nowacek *et al.* (2004) and Croll *et al.* (2001), and noise generated by Dominion Energy's activities at least partially overlap in frequency with the described signals. Blue whales exposed to mid-frequency sonar in the Southern California Bight were less likely to produce low frequency calls usually associated with feeding behavior (Melcón *et al.,* 2012). However, Melcón *et al.* (2012) were unable to determine if suppression of low frequency calls reflected a change in their feeding performance or abandonment of foraging behavior and indicated that implications of the documented responses are unknown. Further, it is not known whether the lower rates of calling actually indicated a reduction in feeding behavior or social contact since the study used data from remotely deployed, passive acoustic monitoring buoys. Results from the 2010–2011 field season of a behavioral response study in Southern California waters indicated that, in some cases and at low received levels, tagged blue whales responded to mid-frequency sonar but that those responses were mild and there was a quick return to their baseline activity (Southall *et al.,* 2011; Southall *et al.,* 2012b, Southall *et al.,* 2019b).

Information on or estimates of the energetic requirements of the individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal will help better inform a determination of whether foraging disruptions incur fitness consequences. Foraging strategies may impact foraging efficiency, such as by reducing foraging effort and increasing success in prey detection and capture, in turn promoting fitness and allowing individuals to better compensate for foraging disruptions. Surface feeding blue whales did not show a change in

behavior in response to mid-frequency simulated and real sonar sources with received levels between 90 and 179 dB *re 1* μ*Pa,* but deep feeding and non-feeding whales showed temporary reactions including cessation of feeding, reduced initiation of deep foraging dives, generalized avoidance responses, and changes to dive behavior (DeRuiter *et al.,* 2017; Goldbogen *et al.,* 2013b; Sivle *et al.,* 2015). Goldbogen *et al.* (2013b) indicate that disruption of feeding and displacement could impact individual fitness and health. However, for this to be true, we would have to assume that an individual whale could not compensate for this lost feeding opportunity by either immediately feeding at another location, by feeding shortly after cessation of acoustic exposure, or by feeding at a later time. There is no indication that individual fitness and health would be impacted, particularly since unconsumed prey would likely still be available in the environment in most cases following the cessation of acoustic exposure.

Similarly, while the rates of foraging lunges decrease in humpback whales due to sonar exposure, there was variability in the response across individuals, with one animal ceasing to forage completely and another animal starting to forage during the exposure (Sivle *et al.,* 2016). In addition, almost half of the animals that demonstrated avoidance were foraging before the exposure but the others were not; the animals that avoided while not feeding responded at a slightly lower received level and greater distance than those that were feeding (Wensveen *et al.,* 2017). These findings indicate the behavioral state of the animal and foraging strategies play a role in the type and severity of a behavioral response. For example, when the prey field was mapped and used as a covariate in examining how behavioral state of blue whales is influenced by mid-frequency sound, the response in blue whale deep-feeding behavior was even more apparent, reinforcing the need for contextual variables to be included when assessing behavioral responses (Friedlaender *et al.,* 2016).

Vocalizations and Auditory Masking

Marine mammals vocalize for different purposes and across multiple modes, such as whistling, production of echolocation clicks, calling, and singing. Changes in vocalization behavior in response to anthropogenic noise can occur for any of these modes and may result directly from increased vigilance (also see the *Potential Effects of Behavioral Disturbance on Marine Mammal Fitness* section) or a startle response, or from a need to compete with an increase in background noise (see Erbe *et al.,* 2016 review on communication masking), the latter of which is described more below.

For example, in the presence of potentially masking signals, humpback whales and killer whales have been observed to increase the length of their songs (Miller *et al.,* 2000; Fristrup *et al.,* 2003; Foote *et al.,* 2004) and blue whales increased song production (Di Iorio and Clark, 2009), while North Atlantic right whales have been observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks *et al.,* 2007). In some cases, animals may cease or reduce sound production during production of aversive signals (Bowles *et al.,* 1994; Thode *et al.,* 2020; Cerchio *et al.,* 2014; McDonald *et al.,* 1995). Blackwell *et al.* (2015) showed that whales increased calling rates as soon as air gun signals were detectable before ultimately decreasing calling rates at higher received levels.

Sound can disrupt behavior through masking, or interfering with, an animal's ability to detect, recognize, or discriminate between acoustic signals of interest (*e.g.,* those used for intraspecific communication and social interactions, prey detection, predator avoidance, or navigation) (Richardson *et al.,* 1995; Erbe and Farmer, 2000; Tyack, 2000; Erbe *et al.,* 2016). Masking occurs when the receipt of a sound is interfered with by another coincident sound at similar frequencies and at similar or higher intensity, and may occur whether the sound is natural (*e.g.,* snapping shrimp, wind, waves, precipitation) or anthropogenic (*e.g.,* shipping, sonar, seismic exploration) in origin. The ability of a noise source to mask biologically important sounds depends on the characteristics of both the noise source and the signal of interest (*e.g.,* signal-to-noise ratio, temporal variability, direction), in relation to each other and to an animal's hearing abilities (*e.g.,* sensitivity, frequency range, critical ratios, frequency discrimination, directional discrimination, age, or TTS hearing loss), and existing ambient noise and propagation conditions. Masking these acoustic signals can disturb the behavior of individual animals, groups of animals, or entire populations. Masking can lead to behavioral changes including vocal changes (*e.g.,* Lombard effect, increasing amplitude, or changing frequency), cessation of foraging or lost foraging opportunities, and leaving an area, to both signalers and receivers, in an attempt to compensate for noise levels (Erbe *et al.,* 2016) or because sounds that would typically have triggered a behavior were not detected. In humans, significant masking of tonal signals occurs as a result of exposure to noise in a narrow band of similar frequencies. As the sound level increases, though, the detection of frequencies above those of the masking stimulus decreases also. This principle is expected to apply to marine mammals as well because of common biomechanical cochlear properties across taxa.

Therefore, when the coincident (masking) sound is man-made, it may be considered harassment when disrupting behavioral patterns. It is important to distinguish TTS and PTS, which persist after the sound exposure, from masking, which only occurs during the sound exposure. Because masking (without resulting in threshold shift) is not associated with abnormal physiological function, it is not considered a physiological effect, but rather a potential behavioral effect.

The frequency range of the potentially masking sound is important in determining any potential behavioral impacts. For example, low-frequency signals may have less effect on high-frequency echolocation sounds produced by odontocetes but are more likely to affect detection of mysticete communication calls and other potentially important natural sounds such as those produced by surf and some prey species. The masking of communication signals by anthropogenic noise may be considered as a reduction in the communication space of animals (*e.g.,* Clark *et al.,* 2009; Matthews *et al.,* 2016) and may result in energetic or other costs as animals change their vocalization behavior (*e.g.,* Miller *et al.,* 2000; Foote *et al.,* 2004; Parks *et al.,* 2007; Di Iorio and Clark, 2009; Holt *et al.,* 2009). Masking can be reduced in situations where the signal and noise come from different directions (Richardson *et al.,* 1995), through amplitude modulation of the signal, or through other compensatory behaviors (Houser and Moore, 2014). Masking can be tested directly in captive species (*e.g.,* Erbe, 2008), but in wild populations it must be either modeled or inferred from evidence of masking compensation. There are few studies addressing real-world masking sounds likely to be experienced by marine mammals in the wild (*e.g.,* Branstetter *et al.,* 2013; Cholewiak *et al.,* 2018).

The echolocation calls of toothed whales are subject to masking by high-frequency sound. Human data indicate low-frequency sound can mask high-

frequency sounds (*i.e.,* upward masking). Studies on captive odontocetes by Au *et al.* (1974, 1985, 1993) indicate that some species may use various processes to reduce masking effects (*e.g.,* adjustments in echolocation call intensity or frequency as a function of background noise conditions). There is also evidence that the directional hearing abilities of odontocetes are useful in reducing masking at the high-frequencies these cetaceans use to echolocate, but not at the low-to-moderate frequencies they use to communicate (Zaitseva *et al.,* 1980). A study by Nachtigall and Supin (2008) showed that false killer whales adjust their hearing to compensate for ambient sounds and the intensity of returning echolocation signals.

Impacts on signal detection, measured by masked detection thresholds, are not the only important factors to address when considering the potential effects of masking. As marine mammals use sound to recognize conspecifics, prey, predators, or other biologically significant sources (Branstetter *et al.,* 2016), it is also important to understand the impacts of masked recognition thresholds (often called ''informational masking''). Branstetter *et al.* (2016) measured masked recognition thresholds for whistle-like sounds of bottlenose dolphins and observed that they are approximately 4 dB above detection thresholds (energetic masking) for the same signals. Reduced ability to recognize a conspecific call or the acoustic signature of a predator could have severe negative impacts. Branstetter *et al.* (2016) observed that if ''quality communication'' is set at 90 percent recognition the output of communication space models (which are based on 50 percent detection) would likely result in a significant decrease in communication range.

As marine mammals use sound to recognize predators (Allen *et al.,* 2014; Cummings and Thompson, 1971; Curé *et al.,* 2015; Fish and Vania, 1971), the presence of masking noise may also prevent marine mammals from responding to acoustic cues produced by their predators, particularly if it occurs in the same frequency band. For example, harbor seals that reside in the coastal waters off British Columbia are frequently targeted by mammal-eating killer whales. The seals acoustically discriminate between the calls of mammal-eating and fish-eating killer whales (Deecke *et al.,* 2002), a capability that should increase survivorship while reducing the energy required to attend to all killer whale calls. Similarly, sperm whales (Curé *et al.,* 2016; Isojunno *et al.,* 2016), long-finned pilot whales (Visser *et al.,* 2016), and humpback whales (Curé *et al.,* 2015) changed their behavior in response to killer whale vocalization playbacks; these findings indicate that some recognition of predator cues could be missed if the killer whale vocalizations were masked. The potential effects of masked predator acoustic cues depends on the duration of the masking noise and the likelihood of a marine mammal encountering a predator during the time that detection and recognition of predator cues are impeded.

Redundancy and context can also facilitate detection of weak signals. These phenomena may help marine mammals detect weak sounds in the presence of natural or manmade noise. Most masking studies in marine mammals present the test signal and the masking noise from the same direction. The dominant background noise may be highly directional if it comes from a particular anthropogenic source such as a ship or industrial site. Directional hearing may significantly reduce the masking effects of these sounds by improving the effective signal-to-noise ratio.

Masking affects both senders and receivers of acoustic signals and, at higher levels and longer duration, can potentially have long-term chronic effects on marine mammals at the population level as well as at the individual level. Low-frequency ambient sound levels have increased by as much as 20 dB (more than three times in terms of SPL) in the world's ocean from pre-industrial periods, with most of the increase from distant commercial shipping (Hildebrand, 2009; Cholewiak *et al.,* 2018). All anthropogenic sound sources, but especially chronic and lower-frequency signals (*e.g.,* from commercial vessel traffic), contribute to elevated ambient sound levels, thus intensifying masking.

In addition to making it more difficult for animals to perceive and recognize acoustic cues in their environment, anthropogenic sound presents separate challenges for animals that are vocalizing. When they vocalize, animals are aware of environmental conditions that affect the ''active space'' (or communication space) of their vocalizations, which is the maximum area within which their vocalizations can be detected before it drops to the level of ambient noise (Brenowitz, 2004; Brumm *et al.,* 2004; Lohr *et al.,* 2003). Animals are also aware of environmental conditions that affect whether listeners can discriminate and recognize their vocalizations from other sounds, which is more important than simply detecting that a vocalization is occurring (Brenowitz, 1982; Brumm *et al.,* 2004; Dooling, 2004; Marten and Marler, 1977; Patricelli *et al.,* 2006). Most species that vocalize have evolved with an ability to make adjustments to their vocalizations to increase the signal-to-noise ratio, active space, and recognizability/distinguishability of their vocalizations in the face of temporary changes in background noise (Brumm *et al.,* 2004; Patricelli *et al.,* 2006). Vocalizing animals can make adjustments to vocalization characteristics such as the frequency structure, amplitude, temporal structure, and temporal delivery (repetition rate), or ceasing to vocalize.

Many animals will combine several of these strategies to compensate for high levels of background noise. Anthropogenic sounds that reduce the signal-to-noise ratio of animal vocalizations, increase the masked auditory thresholds of animals listening for such vocalizations, or reduce the active space of an animal's vocalizations impair communication between animals. Most animals that vocalize have evolved strategies to compensate for the effects of short-term or temporary increases in background or ambient noise on their songs or calls. Although the fitness consequences of these vocal adjustments are not directly known in all instances, like most other trade-offs animals must make, some of these strategies likely come at a cost (Patricelli *et al.,* 2006; Noren *et al.,* 2017; Noren *et al.,* 2020). Shifting songs and calls to higher frequencies may also impose energetic costs (Lambrechts, 1996).

Marine mammals are also known to make vocal changes in response to anthropogenic noise. In cetaceans, vocalization changes have been reported from exposure to anthropogenic noise sources such as sonar, vessel noise, and seismic surveying (see the following for examples: Gordon *et al.,* 2003; Di Iorio and Clark, 2009; Hatch *et al.,* 2012; Holt *et al.,* 20098; Holt *et al.,* 2011; Lesage *et al.,* 1999; McDonald *et al.,* 2009; Parks *et al.,* 2007; Risch *et al.,* 2012; Rolland *et al.,* 2012), as well as changes in the natural acoustic environment (Dunlop *et al.,* 2014). Vocal changes can be temporary, or can be persistent. For example, model simulation suggests that the increase in starting frequency for the North Atlantic right whale upcall over the last 50 years resulted in increased detection ranges between right whales. The frequency shift, coupled with an increase in call intensity by 20 dB, led to a call detectability range of less than 3 km to over 9 km (Tennessen and Parks, 2016). Holt *et al.* (2009) measured killer whale call source levels and background noise levels in the one to 40

kHz band and reported that the whales increased their call source levels by one dB SPL for every one dB SPL increase in background noise level. Similarly, another study on St. Lawrence River belugas reported a similar rate of increase in vocalization activity in response to passing vessels (Scheifele *et al.,* 2005). Di Iorio and Clark (2009) showed that blue whale calling rates vary in association with seismic sparker survey activity, with whales calling more on days with surveys than on days without surveys. They suggested that the whales called more during seismic survey periods as a way to compensate for the elevated noise conditions.

In some cases, these vocal changes may have fitness consequences, such as an increase in metabolic rates and oxygen consumption, as observed in bottlenose dolphins when increasing their call amplitude (Holt *et al.,* 2015). A switch from vocal communication to physical, surface-generated sounds such as pectoral fin slapping or breaching was observed for humpback whales in the presence of increasing natural background noise levels, indicating that adaptations to masking may also move beyond vocal modifications (Dunlop *et al.,* 2010).

While these changes all represent possible tactics by the sound-producing animal to reduce the impact of masking, the receiving animal can also reduce masking by using active listening strategies such as orienting to the sound source, moving to a quieter location, or reducing self-noise from hydrodynamic flow by remaining still. The temporal structure of noise (*e.g.,* amplitude modulation) may also provide a considerable release from masking through comodulation masking release (a reduction of masking that occurs when broadband noise, with a frequency spectrum wider than an animal's auditory filter bandwidth at the frequency of interest, is amplitude modulated) (Branstetter and Finneran, 2008; Branstetter *et al.,* 2013). Signal type (*e.g.,* whistles, burst-pulse, sonar clicks) and spectral characteristics (*e.g.,* frequency modulated with harmonics) may further influence masked detection thresholds (Branstetter *et al.,* 2016; Cunningham *et al.,* 2014).

Masking is more likely to occur in the presence of broadband, relatively continuous noise sources such as vessels. Several studies have shown decreases in marine mammal communication space and changes in behavior as a result of the presence of vessel noise. For example, right whales were observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks *et al.,* 2007) as well as increasing the amplitude (intensity) of their calls (Parks, 2009; Parks *et al.,* 2011). Clark *et al.* (2009) observed that right whales' communication space decreased by up to 84 percent in the presence of vessels. Cholewiak *et al.* (2018) also observed loss in communication space in Stellwagen National Marine Sanctuary for North Atlantic right whales, fin whales, and humpback whales with increased ambient noise and shipping noise. Although humpback whales off Australia did not change the frequency or duration of their vocalizations in the presence of ship noise, their source levels were lower than expected based on source level changes to wind noise, potentially indicating some signal masking (Dunlop, 2016). Multiple delphinid species have also been shown to increase the minimum or maximum frequencies of their whistles in the presence of anthropogenic noise and reduced communication space (for examples see: Holt *et al.,* 2009; Holt *et al.,* 2011; Gervaise *et al.,* 2012; Williams *et al.,* 2013; Hermannsen *et al.,* 2014; Papale *et al.,* 2015; Liu *et al.,* 2017). While masking impacts are not a concern from lower intensity, higher frequency HRG surveys, some degree of masking would be expected in the vicinity of turbine pile driving and concentrated support vessel operation. However, pile driving is an intermittent sound and would not be continuous throughout a day.

Habituation and Sensitization

Habituation can occur when an animal's response to a stimulus wanes with repeated exposure, usually in the absence of unpleasant associated events (Wartzok *et al.,* 2003). Animals are most likely to habituate to sounds that are predictable and unvarying. It is important to note that habituation is appropriately considered as a ''progressive reduction in response to stimuli that are perceived as neither aversive nor beneficial,'' rather than as, more generally, moderation in response to human disturbance having a neutral or positive outcome (Bejder *et al.,* 2009). The opposite process is sensitization, when an unpleasant experience leads to subsequent responses, often in the form of avoidance, at a lower level of exposure. Both habituation and sensitization require an ongoing learning process. As noted, behavioral state may affect the type of response. For example, animals that are resting may show greater behavioral change in response to disturbing sound levels than animals that are highly motivated to remain in an area for feeding (Richardson *et al.,* 1995; National Research Council (NRC), 2003; Wartzok *et al.,* 2003; Southall *et al.,* 2019b). Controlled experiments with captive marine mammals have shown pronounced behavioral reactions, including avoidance of loud sound sources (*e.g.,* Ridgway *et al.,* 1997; Finneran *et al.,* 2003; Houser *et al.,* 2013a,b; Kastelein *et al.,* 2018). Observed responses of wild marine mammals to loud impulsive sound sources (typically airguns or acoustic harassment devices) have been varied but often consist of avoidance behavior or other behavioral changes suggesting discomfort (Morton and Symonds, 2002; see also Richardson *et al.,* 1995; Nowacek *et al.,* 2007; Tougaard *et al.,* 2009; Brandt *et al.,* 2011; Brandt *et al.,* 2012; Dähne *et al.,* 2013; Brandt *et al.,* 2014; Russell *et al.,* 2016; Brandt *et al.,* 2018). Stone (2015a) reported data from at-sea observations during 1,196 airgun surveys from 1994 to 2010. When large arrays of airguns (considered to be 500 in 3 or more) were firing, lateral displacement, more localized avoidance, or other changes in behavior were evident for most odontocetes. However, significant responses to large arrays were found only for the minke whale and fin whale. Behavioral responses observed included changes in swimming or surfacing behavior with indications that cetaceans remained near the water surface at these times. Behavioral observations of gray whales during an air gun survey monitored whale movements and respirations pre-, during-, and post-seismic survey (Gailey *et al.,* 2016). Behavioral state and water depth were the best 'natural' predictors of whale movements and respiration and after considering natural variation, none of the response variables were significantly associated with survey or vessel sounds. Many delphinids approach low-frequency airgun source vessels with no apparent discomfort or obvious behavioral change (*e.g.,* Barkaszi *et al.,* 2012), indicating the importance of frequency output in relation to the species' hearing sensitivity.

Physiological Responses

An animal's perception of a threat may be sufficient to trigger stress responses consisting of some combination of behavioral responses, autonomic nervous system responses, neuroendocrine responses, or immune responses (*e.g.,* Seyle, 1950; Moberg, 2000). In many cases, an animal's first and sometimes most economical (in terms of energetic costs) response is behavioral avoidance of the potential stressor. Autonomic nervous system

responses to stress typically involve changes in heart rate, blood pressure, and gastrointestinal activity. These responses have a relatively short duration and may or may not have a significant long-term effect on an animal's fitness.

Neuroendocrine stress responses often involve the hypothalamus-pituitary-adrenal system. Virtually all neuroendocrine functions that are affected by stress—including immune competence, reproduction, metabolism, and behavior—are regulated by pituitary hormones. Stress-induced changes in the secretion of pituitary hormones have been implicated in failed reproduction, altered metabolism, reduced immune competence, and behavioral disturbance (*e.g.,* Moberg, 1987; Blecha, 2000). Increases in the circulation of glucocorticoids are also equated with stress (Romano *et al.,* 2004).

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and ''distress'' is the cost of the response. During a stress response, an animal uses glycogen stores that can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose serious fitness consequences. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response, energy resources must be diverted from other functions. This state of distress will last until the animal replenishes its energetic reserves sufficiently to restore normal function.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses are well studied through controlled experiments and for both laboratory and free-ranging animals (*e.g.,* Holberton *et al.,* 1996; Hood *et al.,* 1998; Jessop *et al.,* 2003; Krausman *et al.,* 2004; Lankford *et al.,* 2005). Stress responses due to exposure to anthropogenic sounds or other stressors and their effects on marine mammals have also been reviewed (Fair and Becker, 2000; Romano *et al.,* 2002b) and, more rarely, studied in wild populations (*e.g.,* Lusseau and Bejder, 2007; Romano *et al.,* 2002a; Rolland *et al.,* 2012). For example, Rolland *et al.* (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in North Atlantic right whales.

These and other studies lead to a reasonable expectation that some marine mammals will experience physiological stress responses upon exposure to acoustic stressors and that it is possible that some of these would be classified as ''distress.'' In addition, any animal experiencing TTS would likely also experience stress responses (NRC, 2003, 2017).

Respiration naturally varies with different behaviors and variations in respiration rate as a function of acoustic exposure can be expected to co-occur with other behavioral reactions, such as a flight response or an alteration in diving. However, respiration rates in and of themselves may be representative of annoyance or an acute stress response. Mean exhalation rates of gray whales at rest and while diving were found to be unaffected by seismic surveys conducted adjacent to the whale feeding grounds (Gailey *et al.,* 2007). Studies with captive harbor porpoises show increased respiration rates upon introduction of acoustic alarms (Kastelein *et al.,* 2001; Kastelein *et al.,* 2006a) and emissions for underwater data transmission (Kastelein *et al.,* 2005). However, exposure of the same acoustic alarm to a striped dolphin under the same conditions did not elicit a response (Kastelein *et al.,* 2006a), again highlighting the importance in understanding species differences in the tolerance of underwater noise when determining the potential for impacts resulting from anthropogenic sound exposure.

Potential Effects of Disturbance on Marine Mammal Fitness

The different ways that marine mammals respond to sound are sometimes indicators of the ultimate effect that exposure to a given stimulus will have on the well-being (survival, reproduction, *etc.*) of an animal. There is little quantitative marine mammal data relating the exposure of marine mammals from sound to effects on reproduction or survival, though data exists for terrestrial species to which we can draw comparisons for marine mammals. Several authors have reported that disturbance stimuli may cause animals to abandon nesting and foraging sites (Sutherland and Crockford, 1993); may cause animals to increase their activity levels and suffer premature deaths or reduced reproductive success when their energy expenditures exceed their energy budgets (Daan *et al.,* 1996; Feare, 1976; Mullner *et al.,* 2004); or may cause animals to experience higher predation rates when they adopt risk-prone foraging or migratory strategies (Frid and Dill, 2002). Each of these studies addressed the consequences of animals shifting from one behavioral state (*e.g.,* resting or foraging) to another behavioral state (*e.g.,* avoidance or escape behavior) because of human disturbance or disturbance stimuli.

Attention is the cognitive process of selectively concentrating on one aspect of an animal's environment while ignoring other things (Posner, 1994). Because animals (including humans) have limited cognitive resources, there is a limit to how much sensory information they can process at any time. The phenomenon called ''attentional capture'' occurs when a stimulus (usually a stimulus that an animal is not concentrating on or attending to) ''captures'' an animal's attention. This shift in attention can occur consciously or subconsciously (for example, when an animal hears sounds that it associates with the approach of a predator) and the shift in attention can be sudden (Dukas, 2002; van Rij, 2007). Once a stimulus has captured an animal's attention, the animal can respond by ignoring the stimulus, assuming a ''watch and wait'' posture, or treat the stimulus as a disturbance and respond accordingly, which includes scanning for the source of the stimulus or ''vigilance'' (Cowlishaw *et al.,* 2004).

Vigilance is an adaptive behavior that helps animals determine the presence or absence of predators, assess their distance from conspecifics, or to attend cues from prey (Bednekoff and Lima, 1998; Treves, 2000). Despite those benefits, however, vigilance has a cost of time; when animals focus their attention on specific environmental cues, they are not attending to other activities such as foraging or resting. These effects have generally not been demonstrated for marine mammals, but studies involving fish and terrestrial animals have shown that increased vigilance may substantially reduce feeding rates (Saino, 1994; Beauchamp and Livoreil, 1997; Fritz *et al.,* 2002; Purser and Radford, 2011). Animals will spend more time being vigilant, which may translate to less time foraging or resting, when disturbance stimuli approach them more directly, remain at closer distances, have a greater group size (*e.g.,* multiple surface vessels), or when they co-occur with times that an animal perceives increased risk (*e.g.,* when they are giving birth or accompanied by a calf).

The primary mechanism by which increased vigilance and disturbance appear to affect the fitness of individual animals is by disrupting an animal's time budget and, as a result, reducing the time they might spend foraging and resting (which increases an animal's activity rate and energy demand while decreasing their caloric intake/energy). In a study of northern resident killer

whales off Vancouver Island, exposure to boat traffic was shown to reduce foraging opportunities and increase traveling time (Holt *et al.,* 2021). A simple bioenergetics model was applied to show that the reduced foraging opportunities equated to a decreased energy intake of 18 percent while the increased traveling incurred an increased energy output of 3–4 percent, which suggests that a management action based on avoiding interference with foraging might be particularly effective.

On a related note, many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (24-hr cycle). Behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant for fitness if they last more than one diel cycle or recur on subsequent days (Southall *et al.,* 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.,* 2007). It is important to note the difference between behavioral reactions lasting or recurring over multiple days and anthropogenic activities lasting or recurring over multiple days. For example, just because certain activities last for multiple days does not necessarily mean that individual animals will be either exposed to those activity-related stressors (*i.e.,* sonar) for multiple days or further exposed in a manner that would result in sustained multi-day substantive behavioral responses. However, special attention is warranted where longer-duration activities overlay areas in which animals are known to congregate for longer durations for biologically important behaviors.

As noted above, there are few studies that directly illustrate the impacts of disturbance on marine mammal populations. Lusseau and Bejder (2007) present data from three long-term studies illustrating the connections between disturbance from whale-watching boats and population-level effects in cetaceans. In Shark Bay, Australia, the abundance of bottlenose dolphins was compared within adjacent control and tourism sites over three consecutive 4.5-year periods of increasing tourism levels. Between the second and third time periods, in which tourism doubled, dolphin abundance decreased by 15 percent in the tourism area and did not change significantly in the control area. In Fiordland, New Zealand, two populations (Milford and Doubtful Sounds) of bottlenose dolphins with tourism levels that differed by a factor of seven were observed and significant increases in traveling time and decreases in resting time were documented for both. Consistent short-term avoidance strategies were observed in response to tour boats until a threshold of disturbance was reached (average 68 minutes between interactions), after which the response switched to a longer-term habitat displacement strategy. For one population, tourism only occurred in a part of the home range. However, tourism occurred throughout the home range of the Doubtful Sound population and once boat traffic increased beyond the 68-minute threshold (resulting in abandonment of their home range/preferred habitat), reproductive success drastically decreased (increased stillbirths) and abundance decreased significantly (from 67 to 56 individuals in a short period).

In order to understand how the effects of activities may or may not impact species and stocks of marine mammals, it is necessary to understand not only what the likely disturbances are going to be but how those disturbances may affect the reproductive success and survivorship of individuals and then how those impacts to individuals translate to population-level effects. Following on the earlier work of a committee of the U.S. National Research Council (NRC, 2005), New *et al.* (2014), in an effort termed the Potential Consequences of Disturbance (PCoD), outline an updated conceptual model of the relationships linking disturbance to changes in behavior and physiology, health, vital rates, and population dynamics. This framework is a four-step process progressing from changes in individual behavior and/or physiology, to changes in individual health, then vital rates, and finally to population-level effects. In this framework, behavioral and physiological changes can have direct (acute) effects on vital rates, such as when changes in habitat use or increased stress levels raise the probability of mother-calf separation or predation; indirect and long-term (chronic) effects on vital rates, such as when changes in time/energy budgets or increased disease susceptibility affect health, which then affects vital rates; or no effect to vital rates (New *et al.,* 2014). Since this general framework was outlined and the relevant supporting literature compiled, multiple studies developing state-space energetic models for species with extensive long-term monitoring (*e.g.,* southern elephant seals, North Atlantic right whales, Ziphiidae beaked whales, and bottlenose dolphins) have been conducted and can be used to effectively forecast longer-term, population-level impacts from behavioral changes. While these are very specific models with very specific data requirements that cannot yet be applied broadly to project-specific risk assessments for the majority of species, they are a critical first step towards being able to quantify the likelihood of a population level effect. Since New *et al.* (2014), several publications have described models developed to examine the long-term effects of environmental or anthropogenic disturbance of foraging on various life stages of selected species (*e.g.,* sperm whale, Farmer *et al.* (2018); California sea lion, McHuron *et al.* (2018); blue whale, Pirotta *et al.* (2018a); humpback whale, Dunlop *et al.* (2021)). These models continue to add to refinement of the approaches to the PCoD framework. Such models also help identify what data inputs require further investigation. Pirotta *et al.* (2018b) provides a review of the PCoD framework with details on each step of the process and approaches to applying real data or simulations to achieve each step.

Despite its simplicity, there are few complete PCoD models available for any marine mammal species due to a lack of data available to parameterize many of the steps. To date, no PCoD model has been fully parameterized with empirical data (Pirotta *et al.,* 2018a) due to the fact they are data intensive and logistically challenging to complete. Therefore, most complete PCoD models include simulations, theoretical modeling, and expert opinion to move through the steps. For example, PCoD models have been developed to evaluate the effect of wind farm construction on the North Sea harbor porpoise populations (*e.g.,* King *et al.,* 2015; Nabe-Nielsen *et al.,* 2018). These models include a mix of empirical data, expert elicitation (King *et al.,* 2015) and simulations of animals' movements, energetics, and/or survival (New *et al.,* 2014; Nabe-Nielsen *et al.,* 2018).

PCoD models may also be approached in different manners. Dunlop *et al.* (2021) modeled migrating humpback whale mother-calf pairs in response to seismic surveys using both a forwards and backwards approach. While a typical forwards approach can determine if a stressor would have population-level consequences, Dunlop *et al.* demonstrated that working backwards through a PCoD model can be used to assess the ''worst case'' scenario for an interaction of a target species and stressor. This method may

be useful for future management goals when appropriate data becomes available to fully support the model. In another example, harbor porpoise PCoD model investigating the impact of seismic surveys on harbor porpoise included an investigation on underlying drivers of vulnerability. Harbor porpoise movement and foraging were modeled for baseline periods and then for periods with seismic surveys as well; the models demonstrated that temporal (*i.e.,* seasonal) variation in individual energetics and their link to costs associated with disturbances was key in predicting population impacts (Gallagher *et al.,* 2021).

Behavioral change, such as disturbance manifesting in lost foraging time, in response to anthropogenic activities is often assumed to indicate a biologically significant effect on a population of concern. However, as described above, individuals may be able to compensate for some types and degrees of shifts in behavior, preserving their health and thus their vital rates and population dynamics. For example, New *et al.* (2013) developed a model simulating the complex social, spatial, behavioral and motivational interactions of coastal bottlenose dolphins in the Moray Firth, Scotland, to assess the biological significance of increased rate of behavioral disruptions caused by vessel traffic. Despite a modeled scenario in which vessel traffic increased from 70 to 470 vessels a year (a six-fold increase in vessel traffic) in response to the construction of a proposed offshore renewables' facility, the dolphins' behavioral time budget, spatial distribution, motivations, and social structure remain unchanged. Similarly, two bottlenose dolphin populations in Australia were also modeled over five years against a number of disturbances (Reed *et al.,* 2020), and results indicated that habitat/noise disturbance had little overall impact on population abundances in either location, even in the most extreme impact scenarios modeled. By integrating different sources of data (*e.g.,* controlled exposure data, activity monitoring, telemetry tracking, and prey sampling) into a theoretical model to predict effects from sonar on a blue whale's daily energy intake, Pirotta *et al.* (2021) found that tagged blue whales' activity budgets, lunging rates, and ranging patterns caused variability in their predicted cost of disturbance. This method may be useful for future management goals when appropriate data becomes available to fully support the model. Harbor porpoise movement and foraging were modeled for baseline periods and then for periods with seismic surveys as well; the models demonstrated that the seasonality of the seismic activity was an important predictor of impact (Gallagher *et al.,* 2021).

Nearly all PCoD studies and experts agree that infrequent exposures of a single day or less are unlikely to impact individual fitness, let alone lead to population level effects (Booth *et al.,* 2016; Booth *et al.,* 2017; Christiansen and Lusseau, 2015; Farmer *et al.,* 2018; Wilson *et al.,* 2020; Harwood and Booth, 2016; King *et al.,* 2015; McHuron *et al.,* 2018; National Academies of Sciences, Engineering, and Medicine (NAS), 2017; New *et al.,* 2014; Pirotta *et al.,* 2018; Southall *et al.,* 2007; Villegas-Amtmann *et al.,* 2015). As described through this proposed rule, NMFS expects that any behavioral disturbance that would occur due to animals being exposed to construction activity would be of a relatively short duration, with behavior returning to a baseline state shortly after the acoustic stimuli ceases or the animal moves far enough away from the source. Given this, and NMFS' evaluation of the available PCoD studies, and the required mitigation discussed later, any such behavioral disturbance resulting from Dominion Energy's activities is not expected to impact individual animals' health or have effects on individual animals' survival or reproduction, thus no detrimental impacts at the population level are anticipated. Marine mammals may temporarily avoid the immediate area but are not expected to permanently abandon the area or their migratory or foraging behavior. Impacts to breeding, feeding, sheltering, resting, or migration are not expected nor are shifts in habitat use, distribution, or foraging success.

Potential Effects of Vessel Strike on Marine Mammals

Vessel collisions with marine mammals, also referred to as vessel strikes or ship strikes, can result in death or serious injury of the animal. Wounds resulting from ship strike may include massive trauma, hemorrhaging, broken bones, or propeller lacerations (Knowlton and Kraus, 2001). An animal at the surface could be struck directly by a vessel, a surfacing animal could hit the bottom of a vessel, or an animal just below the surface could be cut by a vessel's propeller. Superficial strikes may not kill or result in the death of the animal. Lethal interactions are typically associated with large whales, which are occasionally found draped across the bulbous bow of large commercial ships upon arrival in port. Although smaller cetaceans are more maneuverable in relation to large vessels than are large whales, they may also be susceptible to strike. The severity of injuries typically depends on the size and speed of the vessel (Knowlton and Kraus, 2001; Laist *et al.,* 2001; Vanderlaan and Taggart, 2007; Conn and Silber, 2013). Impact forces increase with speed as does the probability of a strike at a given distance (Silber *et al.,* 2010; Gende *et al.,* 2011).

The most vulnerable marine mammals are those that spend extended periods of time at the surface in order to restore oxygen levels within their tissues after deep dives (*e.g.,* the sperm whale). In addition, some baleen whales seem generally unresponsive to vessel sound, making them more susceptible to vessel collisions (Nowacek *et al.,* 2004). These species are primarily large, slow moving whales. Marine mammal responses to vessels may include avoidance and changes in dive pattern (NRC, 2003).

An examination of all known ship strikes from all shipping sources (civilian and military) indicates vessel speed is a principal factor in whether a vessel strike occurs and, if so, whether it results in injury, serious injury, or mortality (Knowlton and Kraus, 2001; Laist *et al.,* 2001; Jensen and Silber, 2003; Pace and Silber, 2005; Vanderlaan and Taggart, 2007; Conn and Silber, 2013). In assessing records in which vessel speed was known, Laist *et al.* (2001) found a direct relationship between the occurrence of a whale strike and the speed of the vessel involved in the collision. The authors concluded that most deaths occurred when a vessel was traveling in excess of 13 kts.

Jensen and Silber (2003) detailed 292 records of known or probable ship strikes of all large whale species from 1975 to 2002. Of these, vessel speed at the time of collision was reported for 58 cases. Of these 58 cases, 39 (or 67 percent) resulted in serious injury or death (19 of those resulted in serious injury as determined by blood in the water, propeller gashes or severed tailstock, and fractured skull, jaw, vertebrae, hemorrhaging, massive bruising or other injuries noted during necropsy and 20 resulted in death). Operating speeds of vessels that struck various species of large whales ranged from 2 to 51 kn. The majority (79 percent) of these strikes occurred at speeds of 13 kn or greater. The average speed that resulted in serious injury or death was 18.6 kn. Pace and Silber (2005) found that the probability of death or serious injury increased rapidly with increasing vessel speed. Specifically, the predicted probability of serious injury or death increased from 45 to 75 percent as vessel speed

increased from 10 to 14 kn, and exceeded 90 percent at 17 kn. Higher speeds during collisions result in greater force of impact and also appear to increase the chance of severe injuries or death. While modeling studies have suggested that hydrodynamic forces pulling whales toward the vessel hull increase with increasing speed (Knowlton *et al.,* 1995; Clyne, 1999), this is inconsistent with Silber *et al.* (2010), which demonstrated that there is no such relationship (*i.e.,* hydrodynamic forces are independent of speed).

In a separate study, Vanderlaan and Taggart (2007) analyzed the probability of lethal mortality of large whales at a given speed, showing that the greatest rate of change in the probability of a lethal injury to a large whale as a function of vessel speed occurs between 8.6 and 15 kn. The chances of a lethal injury decline from approximately 80 percent at 15 kn to approximately 20 percent at 8.6 kn. At speeds below 11.8 kn, the chances of lethal injury drop below 50 percent, while the probability asymptotically increases toward 100 percent above 15 kn.

The Jensen and Silber (2003) report notes that the Large Whale Ship Strike Database represents a minimum number of collisions because the vast majority probably goes undetected or unreported. In contrast, Dominion Energy's personnel are likely to detect any strike that does occur because of the required personnel training and lookouts, along with the inclusion of Protected Species Observers (as described in the Proposed Mitigation section), and they are required to report all ship strikes involving marine mammals.

In the CVOW–C project area, NMFS has no documented vessel strikes of marine mammals by Dominion Energy during previous site characterization surveys. Given the comprehensive mitigation and monitoring measures (see the Proposed Mitigation and Proposed Monitoring and Reporting section) that would be required of Dominion Energy, NMFS believes that a vessel strike is not likely to occur.

Potential Effects to Marine Mammal Habitat

Dominion Energy's proposed construction activities could potentially affect marine mammal habitat through the introduction of impacts to the prey species of marine mammals (through noise, oceanographic processes, or reef effects), acoustic habitat (sound in the water column), water quality, and biologically important habitat for marine mammals.

Effects on Marine Mammal Prey

Sound may affect marine mammals through impacts on the abundance, behavior, or distribution of prey species (*e.g.,* crustaceans, cephalopods, fish, and zooplankton). Marine mammal prey varies by species, season, and location and, for some, is not well documented. Here, we describe studies regarding the effects of noise on known marine mammal prey.

Fish utilize the soundscape and components of sound in their environment to perform important functions such as foraging, predator avoidance, mating, and spawning (*e.g.,* Zelick *et al.,* 1999; Fay, 2009). The most likely effects on fishes exposed to loud, intermittent, low-frequency sounds are behavioral responses (*i.e.,* flight or avoidance). Short duration, sharp sounds (such as pile driving or air guns) can cause overt or subtle changes in fish behavior and local distribution. The reaction of fish to acoustic sources depends on the physiological state of the fish, past exposures, motivation (*e.g.,* feeding, spawning, migration), and other environmental factors. Key impacts to fishes may include behavioral responses, hearing damage, barotrauma (pressure-related injuries), and mortality. While it is clear that the behavioral responses of individual prey, such as displacement or other changes in distribution, can have direct impacts on the foraging success of marine mammals, the effects on marine mammals of individual prey that experience hearing damage, barotrauma, or mortality is less clear, though obviously population scale impacts that meaningfully reduce the amount of prey available could have more serious impacts.

Fishes, like other vertebrates, have a variety of different sensory systems to glean information from the ocean around them (Hawkins and Johnstone, 1978; Astrup and Mohl, 1993; Astrup, 1999; Popper *et al.,* 2003; Ladich and Popper, 2004; Nedwell *et al.,* 2004; Popper *et al.,* 2005; Braun and Grande, 2008; Ladich and Schulz-Mirbach, 2016; Mann, 2016; Carroll *et al.,* 2017). Depending on their hearing anatomy and peripheral sensory structures, which vary among species, fishes hear sounds using pressure and particle motion sensitivity capabilities and detect the motion of surrounding water (Fay *et al.,* 2008). Most marine fishes primarily detect particle motion using the inner ear and lateral line system while some fishes possess additional morphological adaptations or specializations that can enhance their sensitivity to sound pressure, such as a gas-filled swim bladder (Braun and Grande, 2008; Popper and Fay, 2011).

Hearing capabilities vary considerably between different fish species with data only available for just over 100 species out of the 34,000 marine and freshwater fish species (Eschmeyer and Fong, 2016). In order to better understand acoustic impacts on fishes, fish hearing groups are defined by species that possess a similar continuum of anatomical features, which result in varying degrees of hearing sensitivity (Popper and Hastings, 2009a). There are four hearing groups defined for all fish species (modified from Popper *et al.,* 2014) within this analysis, and they include: fishes without a swim bladder (*e.g.,* flatfish, sharks, rays, *etc.*); fishes with a swim bladder not involved in hearing (*e.g.,* salmon, cod, pollock, *etc.*); fishes with a swim bladder involved in hearing (*e.g.,* sardines, anchovy, herring, *etc.*); and fishes with a swim bladder involved in hearing and high-frequency hearing (*e.g.,* shad and menhaden). Most marine mammal fish prey species would not be likely to perceive or hear mid- or high-frequency sonars. While hearing studies have not been done on sardines and northern anchovies, it would not be unexpected for them to have hearing similarities to Pacific herring (up to 2–5 kHz) (Mann *et al.,* 2005). Currently, less data are available to estimate the range of best sensitivity for fishes without a swim bladder.

In terms of physiology, multiple scientific studies have documented a lack of mortality or physiological effects to fish from exposure to low- and mid-frequency sonar and other sounds (Jørgensen *et al.,* 2005; Kvadsheim and Sevaldsen, 2005; Popper *et al.,* 2007; Kane *et al.,* 2010; Halvorsen *et al.,* 2012; Watwood *et al.,* 2016; Juanes *et al.,* 2017; Popper *et al.,* 2016). Techer *et al.* (2017) exposed carp in floating cages for up to 30 days to low-power 23 and 46 kHz source without any significant physiological response. Other studies have documented either a lack of TTS in species whose hearing range cannot perceive sonar (such as Navy sonar), or for those species that could perceive sonar-like signals, any TTS experienced would be recoverable (Popper and Hastings, 2009a, 2009b; Halvorsen *et al.,* 2012; Ladich and Fay, 2013; Popper *et al.,* 2014; Smith, 2016). Only fishes that have specializations that enable them to hear sounds above about 2,500 Hz (2.5 kHz) such as herring (Mann *et al.,* 2005; Halvorsen *et al.,* 2012; Popper *et al.,* 2014; Mann, 2016) would have the potential to receive TTS or exhibit behavioral responses from exposure to mid-frequency sonar. In addition, any sonar induced TTS to fish whose

hearing range could perceive sonar would only occur in the narrow spectrum of the source (*e.g.,* 3.5 kHz) compared to the fish's total hearing range (*e.g.,* 0.01 kHz to 5 kHz).

In terms of behavioral responses, Juanes *et al.* (2017) discuss the potential for negative impacts from anthropogenic noise on fish, but the author's focus was on broader based sounds, such as ship and boat noise sources. Watwood *et al.* (2016) also documented no behavioral responses by reef fish after exposure to mid-frequency active sonar. Doksaeter *et al.* (2009; 2012) reported no behavioral responses to mid-frequency sonar (such as naval sonar) by Atlantic herring; specifically, no escape reactions (vertically or horizontally) were observed in free swimming herring exposed to mid-frequency sonar transmissions. Based on the results by Doksaeter *et al.* (2009), Doksaeter *et al.* (2012), and Sivle *et al.* (2012), Sivle *et al.* (2014) created a model in order to report on the possible population-level effects on Atlantic herring from active sonar. The authors concluded that the use of sonar poses little risk to populations of herring regardless of season, even when the herring populations are aggregated and directly exposed to sonar. Finally, Bruintjes *et al.* (2016) commented that fish exposed to any short-term noise within their hearing range might initially startle, but would quickly return to normal behavior.

Pile-driving noise during construction is of particular concern as the very high sound pressure levels could potentially prevent fish from reaching breeding or spawning sites, finding food, and acoustically locating mates. A playback study in West Scotland revealed that there was a significant movement response to the pile-driving stimulus in both species at relatively low received sound pressure levels (sole: 144–156 dB re 1μPa Peak; cod: 140–161 dB re 1 μPa Peak, particle motion between 6.51×10^3 and 8.62×10^4 m/s^2 peak) (Mueller-Blenkle *et al.,* 2010). The swimming speed of sole increased significantly during the playback of construction noise when compared to the playbacks of before and after construction. While not statistically significant, cod also displayed a similar behavioral response during before, during, and after construction playbacks. However, cod demonstrated a specific and significant freezing response at the onset and cessation of the playback recording. In both species, indications were present displaying directional movements away from the playback source. During wind farm construction in the Eastern Taiwan Strait, Type 1 soniferous fish chorusing showed a relatively lower intensity and longer duration while Type 2 chorusing exhibited higher intensity and no changes in its duration. Deviation from regular fish vocalization patterns may affect fish reproductive success, cause migration, augmented predation, or physiological alterations.

Occasional behavioral reactions to activities that produce underwater noise sources are unlikely to cause long-term consequences for individual fish or populations. The most likely impact to fish from impact and vibratory pile driving activities at the project areas would be temporary behavioral avoidance of the area. Any behavioral avoidance by fish of the disturbed area would still leave significantly large areas of fish and marine mammal foraging habitat in the nearby vicinity. The duration of fish avoidance of an area after pile driving stops is unknown, but a rapid return to normal recruitment, distribution and behavior is anticipated. In general, any behavioral impacts to prey species are expected to be minor, temporary, and localized given the relatively small areas being affected and the short duration of individual pile driving events.

SPLs of sufficient strength have been known to cause fish auditory impairment, injury and mortality. Popper *et al.* (2014) found that fish with or without air bladders could experience TTS at 186 dB SEL_{cum}. Mortality could occur for fish without swim bladders at >216 dB SEL_{cum}. Those with swim bladders or at the egg or larvae life stage, mortality was possible at >203 dB SEL_{cum}. Other studies found that 203 dB SEL_{cum} or above caused a physiological response in other fish species (Casper *et al.,* 2012, Halvorsen *et al.,* 2012a, Halvorsen *et al.,* 2012b, Casper *et al.,* 2013a, Casper *et al.,* 2013b). However, in most fish species, hair cells in the ear continuously regenerate and loss of auditory function likely is restored when damaged cells are replaced with new cells. Halvorsen *et al.* (2012a) showed that a TTS of 4–6 dB was recoverable within 24 hours for one species. Impacts would be most severe when the individual fish is close to the source and when the duration of exposure is long. Injury caused by barotrauma can range from slight to severe and can cause death, and is most likely for fish with swim bladders. Barotrauma injuries have been documented during controlled exposure to impact pile driving (Halvorsen *et al.,* 2012b; Casper *et al.,* 2013). As described in the Proposed Mitigation section below, Dominion Energy would utilize a sound attenuation device which would reduce potential for injury to marine mammal prey. Other fish that experience hearing loss as a result of exposure to impulsive sound sources may have a reduced ability to detect relevant sounds such as predators, prey, or social vocalizations. However, PTS has not been known to occur in fishes and any hearing loss in fish may be as temporary as the timeframe required to repair or replace the sensory cells that were damaged or destroyed (Popper *et al.,* 2005; Popper *et al.,* 2014; Smith *et al.,* 2006). It is not known if damage to auditory nerve fibers could occur, and if so, whether fibers would recover during this process.

Required soft-starts would allow prey and marine mammals to move away from the source prior to any noise levels that may physically injure prey and the use of the noise attenuation devices would reduce noise levels to the degree any mortality or injury of prey is also minimized. Use of bubble curtains, in addition to reducing impacts to marine mammals, for example, is a key mitigation measure in reducing injury and mortality of marine mammal prey. However, we recognize some mortality, physical injury and hearing impairment in marine mammal prey may occur but we anticipate the amount of prey impacted in this manner is minimal compared to overall availability. Any behavioral responses to pile driving by marine mammal prey are expected to be relatively brief. We expect that other impacts such as stress or masking would occur in fish that serve as marine mammals prey (Popper *et al.,* 2019); however, those impacts would be limited to the duration of impact pile driving if prey were to move out the area in response to noise, these impacts would be minimized.

In addition to fish, prey sources such as marine invertebrates could potentially be impacted by noise stressors as a result of the proposed activities. However, most marine invertebrates' ability to sense sounds is limited. Invertebrates appear to be able to detect sounds (Pumphrey, 1950; Frings and Frings, 1967) and are most sensitive to low-frequency sounds (Packard *et al.,* 1990; Budelmann and Williamson, 1994; Lovell *et al.,* 2005; Mooney *et al.,* 2010). Data on response of invertebrates such as squid, another marine mammal prey species, to anthropogenic sound is more limited (de Soto, 2016; Sole *et al.,* 2017b). Data suggest that cephalopods are capable of sensing the particle motion of sounds and detect low frequencies up to 1–1.5 kHz, depending on the species, and so are likely to detect air gun noise (Kaifu *et al.,* 2008; Hu *et al.,* 2009; Mooney *et*

al., 2010; Samson *et al.,* 2014). Sole *et al.* (2017) reported physiological injuries to cuttlefish in cages placed at-sea when exposed during a controlled exposure experiment to low-frequency sources (315 Hz, 139 to 142 dB re 1 μPa^2 and 400 Hz, 139 to 141 dB re 1 μPa^2). Fewtrell and McCauley (2012) reported squids maintained in cages displayed startle responses and behavioral changes when exposed to seismic air gun sonar (136–162 re 1 μPa^2·s). Jones *et al.* (2020) found that when squid (*Doryteuthis pealeii*) were exposed to impulse pile driving noise, body pattern changes, inking, jetting, and startle responses were observed and nearly all squid exhibited at least one response. However, these responses occurred primarily during the first eight impulses and diminished quickly, indicating potential rapid, short-term habituation. Packard *et al.* (1990) showed that cephalopods were sensitive to particle motion, not sound pressure, and Mooney *et al.* (2010) demonstrated that squid statocysts (specialized sensory organ inside the head called a statocyst that may help an animal determine its position in space (orientation) and maintain balance) act as an accelerometer through which particle motion of the sound field can be detected (Budelmann, 1992). Auditory injuries (lesions occurring on the statocyst sensory hair cells) have been reported upon controlled exposure to low-frequency sounds, suggesting that cephalopods are particularly sensitive to low-frequency sound (Andre *et al.,* 2011; Sole *et al.,* 2013). Behavioral responses, such as inking and jetting, have also been reported upon exposure to low-frequency sound (McCauley *et al.,* 2000b; Samson *et al.,* 2014). Squids, like most fish species, are likely more sensitive to low frequency sounds, and may not perceive mid- and high-frequency sonars.

With regard to potential impacts on zooplankton, McCauley *et al.* (2017) found that exposure to airgun noise resulted in significant depletion for more than half the taxa present and that there were two to three times more dead zooplankton after airgun exposure compared with controls for all taxa, within 1 km of the airguns. However, the authors also stated that in order to have significant impacts on *r*-selected species (*i.e.,* those with high growth rates and that produce many offspring) such as plankton, the spatial or temporal scale of impact must be large in comparison with the ecosystem concerned, and it is possible that the findings reflect avoidance by zooplankton rather than mortality (McCauley *et al.,* 2017). In addition, the results of this study are inconsistent with a large body of research that generally finds limited spatial and temporal impacts to zooplankton as a result of exposure to airgun noise (*e.g.,* Dalen and Knutsen, 1987; Payne, 2004; Stanley *et al.,* 2011). Most prior research on this topic, which has focused on relatively small spatial scales, has showed minimal effects (*e.g.,* Kostyuchenko, 1973; Booman *et al.,* 1996; Sætre and Ona, 1996; Pearson *et al.,* 1994; Bolle *et al.,* 2012).

A modeling exercise was conducted as a follow-up to the McCauley *et al.* (2017) study (as recommended by McCauley *et al.*), in order to assess the potential for impacts on ocean ecosystem dynamics and zooplankton population dynamics (Richardson *et al.,* 2017). Richardson *et al.* (2017) found that a full-scale airgun survey would impact copepod abundance within the survey area, but that effects at a regional scale were minimal (2 percent decline in abundance within 150 km of the survey area and effects not discernible over the full region). The authors also found that recovery within the survey area would be relatively quick (3 days following survey completion), and suggest that the quick recovery was due to the fast growth rates of zooplankton, and the dispersal and mixing of zooplankton from both inside and outside of the impacted region. The authors also suggest that surveys in areas with more dynamic ocean circulation in comparison with the study region and/or with deeper waters (*i.e.,* typical offshore wind locations) would have less net impact on zooplankton.

Notably, a recently described study produced results inconsistent with those of McCauley *et al.* (2017). Researchers conducted a field and laboratory study to assess if exposure to airgun noise affects mortality, predator escape response, or gene expression of the copepod *Calanus finmarchicus* (Fields *et al.,* 2019). Immediate mortality of copepods was significantly higher, relative to controls, at distances of 5 m or less from the airguns. Mortality one week after the airgun blast was significantly higher in the copepods placed 10 m from the airgun but was not significantly different from the controls at a distance of 20 m from the airgun. The increase in mortality, relative to controls, did not exceed 30 percent at any distance from the airgun. Moreover, the authors caution that even this higher mortality in the immediate vicinity of the airguns may be more pronounced than what would be observed in free-swimming animals due to increased flow speed of fluid inside bags containing the experimental animals. There were no sub-lethal effects on the escape performance or the sensory threshold needed to initiate an escape response at any of the distances from the airgun that were tested. Whereas McCauley *et al.* (2017) reported an SEL of 156 dB at a range of 509–658 m, with zooplankton mortality observed at that range, Fields *et al.* (2019) reported an SEL of 186 dB at a range of 25 m, with no reported mortality at that distance.

The presence of large numbers of turbines has been shown to impact meso- and sub-meso-scale water column circulation, which can affect the density, distribution, and energy content of zooplankton and thereby, their availability as marine mammal prey. The presence and operation of structures such as wind turbines are, in general, likely to result in local and broader oceanographic effects in the marine environment and may disrupt marine mammal prey, such as dense aggregations and distribution of zooplankton, through altering the strength of tidal currents and associated fronts, changes in stratification, primary production, the degree of mixing, and stratification in the water column (Chen *et al.,* 2021, Johnson *et al.,* 2021, Christiansen *et al.,* 2022, Dorrell *et al.,* 2022). However, the scale of impacts is difficult to predict and may vary from meters to hundreds of meters for local individual turbine impacts (Schultze *et al.,* 2020) to large-scale dipoles of surface elevation changes stretching hundreds of kilometers (Christiansen *et al.,* 2022).

Dominion Energy anticipates that some turbines would become operational as early as 2025 with all 176 turbines being operational by the end of 2027. As described above, there is scientific uncertainty around the scale of oceanographic impacts (meters to kilometers) associated with turbine operation. CVOW–C is located offshore of Virginia along the Mid-Atlantic Bight. The transition zone between the Mid-Atlantic Bight and South Atlantic Bight is located just south of the project area, off Cape Hatteras, North Carolina. This zone provides the project area with larval ichthyoplankton flow via prevailing currents. However, the project area does not include key foraging grounds for marine mammals with planktonic diets (*e.g.,* North Atlantic right whale) as all known prime foraging habitat is located much further north, off southern New England and north into Canada. This foraging area is approximately 630 km north of the project area, and it would be highly unlikely for this foraging area to be

influenced by activities related to the CVOW–C proposed project.

Although the project area does not provide high-quality foraging habitat for plankton-feeding marine mammals, such as North Atlantic right whales, coastal Virginia provides seasonal high-quality foraging habitat for piscivorous marine mammals, such as humpback whales. Generally speaking and depending on the extent, impacts on prey could impact the distribution of marine mammals in an area, potentially necessitating additional energy expenditure to find and capture prey. However, at the temporal and spatial scales anticipated for this activity, any such impacts on prey are not expected to impact the reproduction or survival of any individual marine mammals. Although studies assessing the impacts of offshore wind development on marine mammals are limited, the repopulation of wind energy areas by harbor porpoises (Brandt *et al.,* 2016; Lindeboom *et al.,* 2011) and harbor seals (Lindeboom *et al.,* 2011; Russell *et al.,* 2016) following the installation of wind turbines is promising. Overall, any impacts to marine mammal foraging capabilities due to effects on prey aggregation from the turbine presence and operation at the CVOW–C project during the effective period of the proposed rule are likely to be limited and areas known to support North Atlantic right whale migration would not be affected by the operation of the CVOW–C project.

In general, impacts to marine mammal prey species are primarily expected to be relatively minor and temporary due to the relatively small areas being affected compared to available habitat and the duration of individual pile driving activities. Some mortality of prey inside the bubble curtain may occur; however, this would be very limited. NMFS does not expect HRG acoustic sources to impact fish and most sources are likely outside the hearing range of the primary prey species in the project area.

Overall, the combined impacts of sound exposure and oceanographic impacts on marine mammal habitat resulting from the proposed activities would not be expected to have measurable effects on populations of marine mammal prey species. Prey species exposed to sound might move away from the sound source, experience TTS, experience masking of biologically relevant sounds, or show no obvious direct effects; however, for Dominion Energy's activity, as described above, these impacts would not be expected to impact marine mammal foraging in a manner that would affect marine mammal reproduction or survival.

Acoustic Habitat

Acoustic habitat is the soundscape, which encompasses all of the sound present in a particular location and time, as a whole when considered from the perspective of the animals experiencing it. Animals produce sound for, or listen for sounds produced by, conspecifics (communication during feeding, mating, and other social activities), other animals (finding prey or avoiding predators), and the physical environment (finding suitable habitats, navigating). Soundscapes are also defined by, and acoustic habitat influenced by, the total contribution of anthropogenic sound. This may include incidental emissions from sources such as vessel traffic or may be intentionally introduced to the marine environment for data acquisition purposes (as in the use of air gun arrays) or for Navy training and testing purposes (as in the use of sonar and explosives and other acoustic sources). Together, sounds made by animals, generated by the geophysical environment (*e.g.,* produced by earthquakes, lightning, wind, rain, waves), or contributed from man-made sources, make up the natural contributions to the total acoustics of a place. These acoustic conditions, termed acoustic habitat, are one attribute of an animal's total habitat.

Anthropogenic noise varies widely in its frequency, content, duration, and loudness and these characteristics greatly influence the potential habitat-mediated effects to marine mammals (please also see the previous discussion on Masking), which may range from local effects for brief periods of time to chronic effects over large areas and for long durations. Depending on the extent of effects to habitat, animals may alter their communications signals (thereby potentially expending additional energy) or miss acoustic cues (either conspecific or adventitious). Problems arising from a failure to detect cues are more likely to occur when noise stimuli are chronic (*e.g.,* longer duration and spread over larger areas) and overlap with biologically relevant cues used for communication, orientation, and predator/prey detection (Francis and Barber, 2013). For more detail on these concepts, *e.g.,* Barber *et al.,* 2009; Pijanowski *et al.,* 2011; Francis and Barber, 2013; Lillis *et al.,* 2014.

The term ''listening area'' refers to the region of ocean over which sources of sound of any kind can be detected by an animal at the center of the space. Loss of ''communication space'' concerns the area over which a specific animal signal, used to communicate with conspecifics in biologically important contexts (*e.g.,* foraging, mating), can be heard, in noisier relative to quieter conditions (Clark *et al.,* 2009). Lost listening area concerns the more generalized contraction of the range over which animals would be able to detect a variety of signals of biological importance, including eavesdropping on predators and prey (Barber *et al.,* 2009). Such metrics do not, in and of themselves, document fitness consequences for the marine animals that live in chronically noisy environments. Long-term population-level consequences mediated through changes in the ultimate survival and reproductive success of individuals are difficult to study, and particularly so underwater. However, it is increasingly well documented that aquatic species rely on qualities of natural acoustic habitats, with researchers quantifying reduced detection of important ecological cues (*e.g.,* Slabbekoorn *et al.,* 2010; Francis and Barber, 2013) as well as survivorship consequences in several species (*e.g.,* Simpson *et al.,* 2014; Nedelec *et al.,* 2015).

Sound produced from construction activities in the CVOW–C project area may be widely dispersed or concentrated in small areas for varying periods. However, anthropogenic noise from construction activities in the project area would be intermittent and temporary. There would be breaks between noise-generating activities on active pile driving days. Similarly, there would likely be periods of days or weeks without construction-related underwater noise.

Although this proposed rulemaking primarily covers the noise produced from construction activities relevant to the CVOW–C project, operational noise was a consideration in NMFS' analysis of the project, as all 176 turbines would become operational within the effective dates (February 5, 2024–February 4, 2029), beginning no sooner than 2025 with all turbines expected to be operational by 2027. Once operational, offshore wind turbines are known to produce continuous, non-impulsive underwater noise, primarily below 1 kHz (Tougaard *et al.,* 2020; Stöber and Thomsen, 2021).

In both newer, quieter, direct-drive systems (such as what has been proposed for CVOW–C) and older generation, geared turbine designs, recent scientific studies indicate that operational noise from turbines is on the order of 110 to 125 dB re 1 μPa root-mean-square sound pressure level (SPL_{rms}) at an approximate distance of 50 m (Tougaard *et al.,* 2020). Recent

measurements of operational sound generated from wind turbines (direct drive, 6 MW, jacket piles) at Block Island wind farm (BIWF) indicate average broadband levels of 119 dB at 50 m from the turbine, with levels varying with wind speed (HDR, Inc., 2019). Interestingly, measurements from BIWF turbines showed operational sound had less tonal components compared to European measurements of turbines with gear boxes.

Tougaard *et al.* (2020) further stated that the operational noise produced by WTGs is static in nature and lower than noise produced by passing ships. This is a noise source in this region to which marine mammals are likely already habituated. Furthermore, operational noise levels are likely lower than those ambient levels already present in active shipping lanes, such that operational noise would likely only be detected in very close proximity to the WTG (Thomsen *et al.,* 2006; Tougaard *et al.,* 2020). Similarly, recent measurements from a wind farm (3 MW turbines) in China found at above 300 Hz, turbines produced sound that was similar to background levels (Zhang *et al.,* 2021). Other studies by Jansen and de Jong (2016) and Tougaard *et al.* (2009) determined that, while marine mammals would be able to detect operational noise from offshore wind farms (again, based on older 2 MW models) for several kilometers, they expected no significant impacts on individual survival, population viability, marine mammal distribution, or the behavior of the animals considered in their study (harbor porpoises and harbor seals).

More recently, Stöber and Thomsen (2021) used monitoring data and modeling to estimate noise generated by more recently developed, larger (10 MW) direct-drive WTGs. Their findings, similar to Tougaard *et al.* (2020), demonstrate that there is a trend that operational noise increases with turbine size. Their study predicts broadband source levels could exceed 170 dB SPL_{rms} for a 10 MW WTG; however, those noise levels were generated based on geared turbines; newer turbines operate with direct drive technology. The shift from using gear boxes to direct drive technology is expected to reduce the levels by 10 dB. The findings in the Stöber and Thomsen (2021) study have not been experimentally validated, though the modeling (using largely geared turbines) performed by Tougaard *et al.* (2020) yields similar results for a hypothetical 10 MW WTG. Overall, noise from operating turbines would raise ambient noise levels in the immediate vicinity of the turbines; however, the spatial extent of increased noise levels would be limited. While Dominion Energy did not request and NMFS is not proposing to authorize take incidental to operation noise as noise levels are anticipated to dissipate quickly, NMFS proposes to require Dominion Energy to measure operational noise levels to confirm these assumptions

Water Quality

Impacts to the immediate substrate during installation of piles are anticipated, but these would be limited to minor, temporary suspension of sediments, which could impact water quality and visibility for a short amount of time but which would not be expected to have any effects on individual marine mammals. Given there are no UXO/MEC detonations proposed by Dominion Energy, we do not expect any direct or indirect effects of explosives and unexploded ordnance to marine mammals via sediment to occur. Furthermore, we do not expect any contamination of water from UXOs/MECs as none would be detonated during this project.

Equipment used by Dominion Energy within the project area, including ships and other marine vessels, potentially aircrafts, and other equipment, are also potential sources of chemical by-products. All equipment is required to be properly maintained in accordance with applicable legal requirements. All such operating equipment would be required to meet Federal water quality standards, where applicable.

Reef Effects

The presence of the WTG and OSS foundations for CVOW–C, scour protection, and cable protection will result in a conversion of the existing sandy bottom habitat to a hard bottom habitat with areas of vertical structural relief (Dominion Energy, 2022). This could potentially alter the existing habitat by creating an ''artificial reef effect'' that results in colonization by assemblages of both sessile and mobile animals within the new hard-bottom habitat (Wilhelmsson *et al.,* 2006; Reubens *et al.,* 2013; Bergström *et al.,* 2014; Coates *et al.,* 2014).

Artificial structures can create increased habitat heterogeneity important for species diversity and density (Langhamer, 2012). The WTG and OSS foundations will extend through the water column, which may serve to increase settlement of meroplankton or planktonic larvae on the structures in both the pelagic and benthic zones (Boehlert and Gill, 2010). Fish and invertebrate species are also likely to aggregate around the foundations and scour protection which could provide increased prey availability and structural habitat (Boehlert and Gill, 2010; Bonar *et al.,* 2015).

Numerous studies have documented significantly higher fish concentrations including species like cod and pouting (*Trisopterus luscus*), flounder (*Platichthys flesus*), eelpout (*Zoarces viviparus*), and eel (*Anguilla anguilla*) near in-water structures than in surrounding soft bottom habitat (Langhamer and Wilhelmsson, 2009; Bergström *et al.,* 2013; Reubens *et al.,* 2013). In the German Bight portion of the North Sea, fish were most densely congregated near the anchorages of jacket foundations, and the structures extending through the water column were thought to make it more likely that juvenile or larval fish encounter and settle on them (Rhode Island Coastal Resources Management Council (RI–CRMC), 2010; Krone *et al.,* 2013). In addition, fish can take advantage of the shelter provided by these structures while also being exposed to stronger currents created by the structures, which generate increased feeding opportunities and decreased potential for predation (Wilhelmsson *et al.,* 2006). The presence of the foundations and resulting fish aggregations around the foundations is expected to be a long-term habitat impact, but the increase in prey availability could potentially be beneficial for some marine mammals.

Estimated Take of Marine Mammals

This section provides an estimate of the number of incidental takes proposed for authorization, which will inform both NMFS' consideration of ''small numbers'' and the negligible impact determination.

Dominion Energy's activities are expected to result in the incidental take, by harassment only, of marine mammals; no serious injury or mortality is anticipated or proposed for authorization. Except with respect to certain activities not pertinent here, section 3(18) of the MMPA defines ''harassment'' as any act of pursuit, torment, or annoyance, which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

Authorized takes would primarily be by Level B harassment, as noise from impact and vibratory pile driving and

HRG surveys could result in behavioral disturbance. Impacts such as masking and TTS can contribute to behavior disturbances. There is also some potential for auditory injury (Level A harassment) of mysticetes (fin whales, humpback whales, minke whales, sei whales), high frequency cetaceans (harbor porpoises), and phocids (gray seals and harbor seals) due to their hearing sensitivities and the nature of the activities. As described below, the larger distances to the PTS thresholds, when considering marine mammal weighting functions, demonstrate this potential. For mid-frequency hearing sensitivities, when thresholds and weighting and the associated PTS zone sizes are considered, the potential for PTS from the noise produced by the project is negligible. While NMFS is proposing to authorize Level A harassment and Level B harassment, the proposed mitigation and monitoring measures are expected to minimize the amount and severity of such taking to the extent practicable (see Proposed Mitigation).

As described previously, no serious injury or mortality is anticipated or proposed to be authorized incidental to Dominion Energy's specified activities. Pile driving and HRG surveys inherently are not considered to have the potential to cause marine mammal mortality or serious injury. While, in general, vessel strikes have the potential to result in mortality or serious injury to marine mammals, given the factors discussed previously and the mitigation and monitoring measures required by this proposed rule, the probability of a vessel strike is so low as to be discountable. Hence, no mortality or serious injury is anticipated or proposed to be authorized. Below we describe how the proposed take numbers are estimated.

For acoustic impacts, we estimate take by considering: (1) acoustic thresholds above which the best available science indicates marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment; (2) the area or volume of water that will be ensonified above these levels in a day; (3) the density or occurrence of marine mammals within these ensonified areas; and (4) the number of days of activities. We note that while these factors can contribute to a basic calculation to provide an initial prediction of potential takes, additional information that can qualitatively inform take estimates is also sometimes available (*e.g.,* previous monitoring results or average group size). Below, we describe the factors considered here in more detail and present the proposed take estimates.

In this case, as described below, there are multiple lines of data with which to address density or occurrence and, for each species and activity, the largest value resulting from the three take estimation methods described below (*i.e.,* density-based, PSO-based, or mean group size) was carried forward as the amount of requested take, by Level B harassment. The amount of requested take, by Level A harassment, reflects the density-based exposure estimates and, for some species and activities, consideration of the effectiveness of mitigation measures to avoid or minimize the potential for injury.

Below, we describe the acoustic thresholds NMFS uses, discuss the marine mammal density and occurrence/group size information used, and then describe the modeling and methodologies applied to estimate take for each of Dominion Energy's proposed construction activities. NMFS has carefully considered all information and analysis presented by the applicant as well as all other applicable information and, based on the best available science, concurs that the applicant's estimates of the types and amounts of take for each species and stock are reasonable and is what NMFS is proposing to authorize. NMFS notes the take estimates described herein for foundation installation can be considered conservative as the estimates do not reflect the implementation of mitigation (other than sound attenuation device use) and monitoring measures for any marine mammal species or stock, with the exception of North Atlantic right whale. In the case of North Atlantic right whales, NMFS has determined that the potential for Level A harassment (PTS) has been reduced to a *de minimis* likelihood due to the proposed enhanced mitigation measures. The amount of take by Level B harassment that is proposed to be authorized for North Atlantic right whales does not consider the implementation of the enhanced mitigation measures.

Marine Mammal Acoustic Thresholds

NMFS recommends the use of acoustic thresholds that identify the received level of underwater sound above which exposed marine mammals would be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur PTS of some degree (equated to Level A harassment). A summary of all NMFS' thresholds can be found at *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance*.

Level B Harassment

Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source or exposure context (*e.g.,* frequency, predictability, duty cycle, duration of the exposure, signal-to-noise ratio, distance to the source, ambient noise, and the receiving animals (hearing, motivation, experience, demography, behavior at time of exposure, life stage, depth) and can be difficult to predict (*e.g.,* Southall *et al.,* 2007, 2021; Ellison *et al.,* 2012). Based on what the available science indicates and the practical need to use a threshold based on a metric that is both predictable and measurable for most activities, NMFS typically uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS generally predicts that marine mammals are likely to be behaviorally harassed in a manner considered to be Level B harassment when exposed to underwater anthropogenic noise above the received root-mean-square sound pressure levels (RMS SPL) of 120 dB (referenced to 1 micropascal (re 1 μPa)) for continuous (*e.g.,* vibratory pile-driving, drilling) and above the received RMS SPL 160 dB re: 1 μPa for non-explosive impulsive (*e.g.,* seismic airguns) or intermittent (*e.g.,* scientific sonar) sources. Generally speaking, Level B harassment take estimates based on these behavioral harassment thresholds are expected to include any likely takes by TTS as, in most cases, the likelihood of TTS occurs at distances from the source less than those at which behavioral harassment is likely. TTS of a sufficient degree can manifest as behavioral harassment, as reduced hearing sensitivity and the potential reduced opportunities to detect important signals (conspecific communication, predators, prey) may result in changes in behavior patterns that would not otherwise occur.

Dominion Energy's construction activities include the use of continuous (*e.g.,* vibratory pile driving) and intermittent (*e.g.,* impact pile driving, HRG acoustic sources) sources, and, therefore, the 120 and 160 dB *re 1* μ*Pa* (rms) thresholds are applicable.

Level A Harassment

NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0) (Technical Guidance, 2018) identifies dual criteria to assess auditory injury (Level A harassment) to five different marine mammal groups

(based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive). As dual metrics, NMFS considers onset of PTS (Level A harassment) to have occurred when either one of the two metrics is exceeded (*i.e.,* metric resulting in the largest isopleth). Dominion Energy's proposed activities include the use of non-impulsive sources.

These thresholds are provided in Table 9 below. The references, analysis, and methodology used in the development of the thresholds are described in NMFS' 2018 Technical Guidance, which may be accessed at: *www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance*.

TABLE 9—ONSET OF PERMANENT THRESHOLD SHIFT (PTS)

[NMFS, 2018]

Hearing group	PTS onset thresholds * (received level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1:* $L_{p,0\text{-}pk,flat}$: 219 dB; $L_{E,p,\ LF,24h}$: 183 dB	*Cell 2:* $L_{E,p,\ LF,24h}$: 199 dB.
Mid-Frequency (MF) Cetaceans	*Cell 3:* $L_{p,0\text{-}pk,flat}$: 230 dB; $L_{E,p,\ MF,24h}$: 185 dB	*Cell 4:* $L_{E,p,\ MF,24h}$: 198 dB.
High-Frequency (HF) Cetaceans	*Cell 5:* $L_{p,0\text{-}pk,flat}$: 202 dB; $L_{E,p,HF,24h}$: 155 dB	*Cell 4:* $L_{E,p,\ HF,24h}$: 198 dB.
Phocid Pinnipeds (PW) (Underwater)	*Cell 7:* $L_{p,0\text{-}pk.flat}$: 218 dB; $L_{E,p,PW,24h}$: 185 dB	*Cell 8:* $L_{E,p,PW,24h}$: 201 dB.

* Dual metric thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds are recommended for consideration.

Note: Peak sound pressure level ($L_{p,0\text{-}pk}$) has a reference value of 1 μPa, and weighted cumulative sound exposure level ($L_{E,p}$) has a reference value of 1μPa^{2}s. In this Table, thresholds are abbreviated to be more reflective of International Organization for Standardization standards (ISO, 2017). The subscript ''flat'' is being included to indicate peak sound pressure are flat weighted or unweighted within the generalized hearing range of marine mammals (*i.e.,* 7 Hz to 160 kHz). The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW pinnipeds) and that the recommended accumulation period is 24 hours. The weighted cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these thresholds will be exceeded.

As Dominion Energy has not requested, and NMFS has not proposed to authorize any take related to the detonation of UXOs/MECs, the acoustic (*i.e.,* PTS onset and TTS onset for underwater explosives) and the pressure thresholds (*i.e.,* lung and gastrointestinal tract injuries) are not discussed or included in this proposed action.

Acoustic and Exposure Modeling Methods

As described above, underwater noise associated with the construction of offshore components of CVOW–C would predominantly result from installation of the WTG monopile and the OSS jacket foundations using a dual-vibratory and impact pile driving approach while noise from cable landfall construction activities (*i.e.,* temporary cofferdam and temporary goal post installation and removal) will primarily result from either impact pile driving (for the temporary goal posts) or vibratory pile driving (for the temporary cofferdams). Acoustic modeling was performed for some activities for which there was a pile driving component, including WTG and OSS foundation installation and temporary cofferdam installation and removal. The basic modeling approach is to characterize the sounds produced by the source, determine how the sounds propagate within the surrounding water column, and then estimate species-specific exposure probability by considering the range- and depth-dependent sound fields in relation to animal movement in simulated representative construction scenarios.

Animat exposure modeling was only performed for foundation installation. For other proposed activities planned by Dominion Energy (*i.e.,* temporary cofferdam installation and removal, temporary goal post installation and removal, HRG surveys), take was estimated using a ''static'' approach, as detailed later in the Static Method section.

Dominion Energy employed Tetra Tech, Inc. (Tetra Tech) to conduct the acoustic modeling and Marine Acoustics, Inc. (MAI) for the animal movement modeling to better understand both the sound fields produced during foundation and cofferdam installation and to estimate any potential exposures (see the Acoustic Modeling report in Appendix A of Dominion Energy's ITA application). Dominion Energy also collaborated with the Institute for Technical and Applied Physics (iTAP) for information related to vibratory pile driving of foundation piles. Tetra Tech also performed the acoustic analysis related to temporary cofferdam installation via vibratory pile driving. Acoustic source modeling of vibratory pile driving related to cofferdam installation and removal was used in conjunction with static methods to yield estimated and requested take values. The approach undertaken by Tetra Tech to determine the sound source of impact pile driving of WTG foundations was originally applied to the CVOW Pilot Project, and subsequently modified based on newly available data and the additional availability of research studies. This revised approach is summarized here; more detail can be found in the Acoustic Modeling report in Appendix A of Dominion Energy's ITA application.

Acoustic Source Modeling

Based on a literature review of pile driving measurement reports, theoretical modeling reports, and peer-reviewed research papers (see the references in Attachment Z–2 in Appendix A of Dominion Energy's COP (2023)), Tetra Tech developed an empirical modeling approach for calculating the acoustic source of impact pile driving foundation installation activities proposed for the CVOW–C project. A collaboration between Dominion Energy and iTAP assessed the estimated acoustic source levels produced from vibratory pile driving of foundation piles based on empirical data collected and assessed from the CVOW Pilot Project and other European offshore wind farms. These two modeling approaches are discussed separately here.

Foundation Impact Pile Driving Source Level Empirical Model

An empirical model developed by Tetra Tech was used to determine the peak sound level (L_{pk}) and sound exposure level (SEL) sound source levels for the foundation pile driving scenarios. To feed into the model, Tetra Tech obtained sound levels from relevant scenarios for a variety of pile diameter sizes, driven with hammers of varying energies, and collected or analyzed at different ranges from the impacted pile. This empirical model was implemented by using the following steps:

1. Normalizing the received sound pressure levels to a common received range, assuming a transmission loss of *15LogR,* where R is the distance ratio;
2. Scaling the source levels to an energy of 4,000 kJ, assuming a relationship between the hammer energy and radiated sound as 10 times the base 10 logarithm of the ratio of hammer energy to the referenced hammer energy (as in the scaling laws outlined in von Pein *et al.,* 2022); and
3. Calculating a linear regression of the adjusted source levels (which has been normalized for range and hammer energy) as a function of the base 10 logarithm of the pile diameters, which is then used to predict the broadband SEL and peak sound levels for the planned energy and diameter.

Pile driving sound source levels were represented using three different sound metrics: L_{pk}, SEL, and sound pressure level (SPL). One-third octave band levels from 12.5 Hz to 20 kHz were derived from surrogate spectra taken from published data for piles of similar diameters, and adjusted based on the empirical model above. For the L_{pk} underwater acoustic modeling scenario (evaluating a single pile-driving strike), the pile driving sound source was represented as a point source at a mid-water depth. To estimate SEL, the monopile and pin pile driving scenarios were modeled using a vertical array of point sources spaced at 1 m intervals and assuming a specific number of strikes for each type of pile (see Formula 2 in Attachment Z–1 of Appendix A in the application). The SPL scenario was set up in an identical manner to the SEL scenario, with the primary difference being that the model did not incorporate the total number of pile driving strikes needed for each of the monopile and pin pile scenarios within a 24-hour period. Instead, only a single pile driving strike was incorporated.

Information on the impact pile driving scenarios and source levels for WTGs, OSSs, and goal posts can be found in Table Z–7 of Appendix A of Dominion Energy's ITA application. These impact modeling scenarios assumed no sound attenuation. For all WTG monopile modeling (*i.e.,* Scenarios 1–3 including standard driving and hard-to-drive installation approaches), a SEL source level of 226 was assumed. For OSS modeling using pin piles, 214 dB was assumed. For goal post installation, a SEL source level of 183 dB was assumed (California Department of Transportation (CALTRANS), 2015).

Foundation Vibratory Pile Driving Source Level Empirical Model

Limited empirical data exists for the installation of foundation piles by vibratory driving, with most being measured by iTAP (see Remmers and Bellmann (2021) in Appendix A of the application (Attachment Z–3)). Current datasets contain a variety of different information, including ranges of water depths from several meters to depths of 40 m, different sediment types, and measured receiver distances from several meters away from the source up to 750 m away.

To predict the expected underwater noise levels during vibratory pile driving of 2.4 m pin piles for the OSS and 9.5 m monopiles, iTAP used the limited empirical data from several existing offshore wind farms from different pile diameters. All data were normalized to a distance from the source of 750 m assuming a propagation loss of *15LogR,* where *R* is the distance ratio. Given this normalization, uncertainties of <3 dB were expected. The data were plotted as a function of the pile diameter and then fit with a statistical regression curve (see the figure in Remmers and Bellmann (2021) Attachment Z–3 in Appendix A of Dominion Energy's application). Using the resulting regression, iTAP predicted noise levels of 151 dB SPL for 2.4 m pin piles and 159 dB SPL for 9.5 m monopiles, at a range of 750 m from the driven piles (Remmers and Bellmann (2021)). Based on possible influences of friction between the head of the vibratory hammer and the top of the piles, iTAP states that these results at 750 m from the piles may be overestimating the source level for vibratory pile driving.

For vibratory installation of cofferdams, adjusted one-third-octave band source levels (with a broadband source level of 195 dB SEL) obtained from similar offshore construction projects and then adjusted to account for the estimated force needed to drive cofferdam sheet piles (see Schultz-von Glahn *et al.,* 2006).

Acoustic Propagation Modeling

To predict acoustic levels at range during foundation installation (impact and vibratory pile driving) and temporary cofferdam installation and removal (vibratory pile driving), Tetra Tech used sound propagation models, discussed below. For the installation and removal of goal posts and HRG surveys, Dominion Energy assumed a practical spreading loss rate (*15logR*). Below we describe the more sophisticated sound propagation modeling methodology.

Tetra Tech utilized a software called dBSea, which was developed by Marshall Day Acoustics (*https://www.dbsea.co.uk/*), to predict the underwater noise in similar environments to what might be encountered at the CVOW–C project site. Per Attachment Z–1 of the COP, Tetra Tech used different ''solvers'' (*i.e.,* algorithms) for the low and high-frequency ranges, including:

- *dBSeaPE (Parabolic Equation Method):* The dBSeaPE solver makes use of the range-dependent acoustic model (RAM) parabolic equation method, a versatile and robust method of marching the sound field out in range from the sound source. This method is one of the most widely used in the underwater acoustics community, offers excellent performance in terms of speed and accuracy in a range of challenging scenarios, and was used for low frequencies.
- *dBSeaRay (Ray Tracing Method):* The dBSeaRay solver forms a solution by tracing rays from the source to the receiver. Many rays leave the source covering a range of angles, and the sound level at each point in the receiving field is calculated by coherently summing the components from each ray. This is currently the only computationally efficient method at high frequencies.

Each model utilizes imported environmental data and manually placed noise sources in the aquatic environment, which could consist of either equipment in the standard dBSea database or a user-specific database (*i.e.,* the empirically determined source levels and spectra, discussed above). The software then allows the user to include properties specific to the project site including bathymetry, seabed, and water column characteristics (*e.g.,* sound speed profiles, temperature, salinity, and current). Tetra Tech also incorporated variables for each pile to account for the soft-start of impact pile driving of foundation piles and pile penetration progression.

For the CVOW–C project's modeled environment using dBSea, bathymetry data was obtained by Tetra Tech from the National Geophysical Data Center and U.S. Coastal Relief Model (NOAA Satellite and Information Service, 2020) and consisted of a horizontal resolution of 3 arc seconds (defined as 90 m (295.28 ft)). The data covered an area consisting of 138 km × 144 km (452,755.91 ft × 472,440.94 ft) with a maximum depth of 459 m (1,505.91 ft). Sound sources were placed near the middle of the bathymetry area. The bathymetry data was imported into the dBSea model and extents were set for displaying the received sound levels. Relatedly, sediment data was also included into the model as bottom sedimentation has the potential to directly impact the sound propagation. Dominion Energy's site assessment surveys revealed the project area primarily consists of a predominantly sandy seabed. While not reiterated here, Appendix A of Dominion Energy's application contains the tables that include the geoacoustic properties of the sub-bottom sediments for modeling scenarios involving the more offshore WTG and OSS foundations (see Table Z–5) and for the nearshore temporary cofferdams (see Table Z–6).

Given that the sound speed profile in an aquatic environment varies throughout the year, Tetra Tech calculated seasonal sound speed profiles based on the proposed installation schedule presented for the CVOW–C project. Dominion Energy would only install WTG and OSS foundations between May 1st and October 31st, annually, hence an average sound speed profile was calculated for this time period. Sound speed profile data was obtained from the NOAA Sound Speed Manager software incorporating World Ocean Atlantic 2009 extension algorithms. A sensitivity analysis was performed on the monthly sound speed information to determine the most conservative sound modeling results. The average sound speed profile obtained from this dataset was directly included into the dBSea model (see Figure 3 in Attachment Z–1 in Dominion Energy's application (Appendix A)). This same approach was undertaken for temporary cofferdam installation.

The scenarios for WTG monopile and OSS jacket pin pile installation were modeled using a vertical array (based on third-octave band sound characteristics that was adjusted for site-specific parameters, including expected hammer energy and the number of hammers strikes needed per each scenario) of point sources spaced at 1-m intervals. Each of the third octave band center frequencies from 12.5 Hz up to 20 kHz, of the source spectra, was modeled. In order to more closely match expected sound propagation characteristics of the source signal, a constant 15 dB/decade roll-off filter is applied to the modeled spectra after the second spectral peak. The spectra source levels for impact driving of monopile and pin piles can be found in Figure 10 of the CVOW–C ITA application. The vibratory pile driving spectra, which is available in Figure 11 of the ITA application, used reference information from iTAP (Gerke and Bellmann, 2012), the California Department of Transportation (CALTRANS, 2015), and from measurements of vibratory driving collected by Tetra Tech. Based on the description above, Tetra Tech determined an appropriate sound speed profile to input into dBSea by pulling the average sound speed profile for the construction period (May 1st to October 31st), following the schedule provided by Dominion Energy. No information was pulled for November 1st through April 30th, as no pile driving is planned due to seasonal restrictions regarding the North Atlantic right whale. The monthly sound speed profile for the planned WTG and OSS foundation construction period is found in Figure 12 in the CVOW–C ITA application.

The sound level estimates are calculated from the generated three-dimensional sound fields and then, at each sampling range, the maximum received level that occurs within the water column is used as the received level at that range. The dBSea model allows for a maximum received level-over-depth approach (*i.e.,* the maximum received level that occurs within the water column at each calculation point). These maximum-over-depth (R_{max}) values are then compared to predetermined threshold levels to determine exposure and acoustic ranges to Level A harassment and Level B harassment threshold isopleths. However, the ranges to a threshold typically differ among radii from a source and also might not be continuous along a radii because sound levels may drop below threshold at some ranges and then exceed threshold at farther ranges. Both the R_{max} (the maximum range in the model at which the sound level was calculated) and $R_{95\%}$ (excludes ends of protruding areas or small isolated acoustic foci not representative of the nominal ensonified zone) were calculated for each of the relevant regulatory thresholds. The difference between R_{max} and $R_{95\%}$ depends on the source directivity and the heterogeneity of the acoustic environment. To minimize the influence of these inconsistencies, 5 percent of the farthest such footprints were excluded from the model data. The resulting range, $R_{95\%}$, was chosen to identify the area over which marine mammals may be exposed above a given threshold because, regardless of the shape of the maximum-over-depth footprint, the predicted range encompasses at least 95 percent of the horizontal area that would be exposed to sound at or above the specified threshold. The difference between R_{max} and $R_{95\%}$ depends on the source directivity and the heterogeneity of the acoustic environment.

Here we note that Tetra Tech and MAI did not calculate or provide exposure ranges to the Level A harassment SEL_{cum} thresholds in the ITA application as provided by other offshore wind developers in their ITA application. Instead, Dominion Energy chose to utilize acoustic ranges ($R_{95\%}$) values in its analysis, which NMFS concurs is also a reasonable approach and likely results in somewhat comparatively larger zones. Dominion Energy's application, and this proposed rule, include the $R_{95\%}$ ranges as these are representative of the expected underwater acoustic footprints during foundation and cofferdam installation.

Temporary cofferdams followed a similarly described approach. To estimate the distances to the harassment isopleths from the vibratory installation of sheet piles, it was assumed that the vibratory pile driver would use approximately 1,800 kilonewtons of vibratory force over 60 minutes. Given the close proximity of all temporary cofferdams in the nearshore environment and the relatively same installation depth (3.3. m), a single representative location (*i.e.,* the centermost cofferdam) was used for the modeling analysis.

As previously described above, unique environmental inputs can be included into dBSea to provide a more project-specific output. Tetra Tech input bathymetry data, which was obtained from the National Geophysical Data Center (NGDC) and the U.S. Coastal Relief Model (NOAA Satellite and Information Service, 2020) with a horizontal resolution of 3 arc seconds (approximately 90 m). The bathymetry data were sampled through the creation of a fan of radials at specifically given angular spacings, which was in turn used to determine depth points as each of the modeling transects.

Sediment data was included as determined to be specific to the CVOW–C project area (*i.e.,* predominately sand), which were informed due to past

geotechnical surveys completed in support of the adjacent CVOW Pilot Project. The sediment layers incorporated into the dBSea model can be found in Table 28 of Dominion Energy's ITA application.

To determine the appropriate sound speed profile, Tetra Tech looked toward Dominion Energy's construction schedule, which states that temporary cofferdams would be installed and removed from Q1 to Q4 of 2024, but most likely between May 1st and October 31st. As this period is the same period of time where the 2024 foundation installation activities would be occurring, Tetra Tech incorporated the same average sound speed profile used for WTG and OSS foundation installation (see Figure 12 in Dominion Energy's ITA application). As no pile driving of any type is planned to occur from November to April, these months were not incorporated into the sound speed profile analysis. As was previously described for foundation installation, the speed of sound profile information was obtained using the NOAA Sound Speed Manager software, which incorporated the World Ocean Atlantic 2009 extension algorithms.

To calculate the ranges to the defined acoustic thresholds, Tetra Tech utilized a maximum received level-over-depth approach where the maximum received sound level that occurs within the water column at each sampling point was used. Tetra Tech calculated both the R_{max} and the $R_{95\%}$ for each of the marine mammal regulatory thresholds.

Animal Movement Modeling

To estimate the probability of exposure of animals to sound above NMFS' harassment thresholds during foundation installation, MAI integrated the sound fields generated from the source and propagation models described above with marine mammal species-typical behavioral parameters (*e.g.,* dive parameters, swimming speed, and course/direction changes). Animal movement modeling was performed for all marine mammal species determined to potentially occur within the CVOW–C project area to estimate the amount of potential acoustic exposures above NMFS' Level A (PTS) harassment and Level B (behavioral) harassment thresholds. Animat modeling was conducted for four scenarios (three for WTGs, one for OSS) that were determined to be representative of the types of construction activities expected at three different locations (two for WTGs (one shallow (21 m (69 ft)) and one deep (37 m (121 ft)) location) and one for OSSs (28 m (92 ft))). These locations were selected to appropriately observe the range of effects of sound propagation. The modeled areas are shown in Figure Z–4 in Dominion Energy's Underwater Acoustic Assessment (Appendix A in the application).

MAI's animat modeling was conducted using the Acoustic Integration Model (AIM; Frankel *et al.,* 2002), which is a Monte Carlo based statistical model in which multiple iterations of realistic predictions of acoustic source use as well as animal distribution and movement patterns are conducted to provide statistical predictions of estimated effects from exposure to underwater sound transmissions. By using AIM, each acoustic source and receiver were modeled using the same concept as animats. For each species, separate AIM simulations were developed and iterated for each modeling scenario and activity location. During the simulations, animats were randomly distributed of the model simulation area and the predicted received sound level was estimated every 30 seconds to create a history over a 24-hour period. Animats were also pre-programmed to move every 30 seconds based upon species-specific behaviors. At the end of each 30 second interval, the received sound level (in dB RMS) for each animat was recorded.

Animats that exceed NMFS' acoustic thresholds were identified and the range for the exceedances determined. The output of the simulation is the exposure history for each animat within the simulation, and the combined history of all animats gives a probability density function of exposure during the project. The number of animals expected to exceed the regulatory thresholds is determined by scaling the probability of exposure by the species-specific density of animals in the area. By programming animats to behave like marine species that may be exposed to foundation installation noise during pile driving, the animats are exposed to the sound fields in a manner similar to that expected for real animals.

Static Take Estimate Method

Take estimates from cable landfall construction activities (cofferdam and goal post installation and removal) and HRG surveys were calculated based on a static method (*i.e.,* animal movement modeling was not conducted for these activities). Take estimates produced using the static method are the product of density, ensonified area, and number of days of pile driving work. Specifically, take estimates are calculated by multiplying the expected densities of marine mammals in the activity area(s) by the area of water likely to be ensonified above the NMFS defined threshold levels in a single day (24-hour period). Next that product is multiplied by the number of days pile driving is likely to occur. A summary of this method is illustrated in the following formula:

$$\textit{Estimated Take} = D \times ZOI \times \#\ \textit{of days}$$

Where:

D = average species density (per 100 km²); and

ZOI = maximum daily ensonified area to relevant thresholds.

This methodology was utilized for impact pile driving associated with goal posts, vibratory pile driving associated with temporary cofferdams, and active acoustic source use from HRG surveys as no exposure modeling was conducted.

Density and Occurrence

In this section, we provide the information about the presence, density, or group dynamics of marine mammals that will inform the take calculations. As noted above, depending on the species and activity type and as described in the take estimation section for each activity type, the requested amount of take, and which NMFS proposes to authorize, is based on the highest estimate of take resulting from full consideration of density models, average group sizes, or site-specific survey data.

Dominion Energy applied the Duke University Marine Geospatial Ecology Laboratory marine mammal habitat-based density models (*https://seamap.env.duke.edu/models/Duke/EC/*) to estimate take from WTG and OSS foundation installation, temporary goal post installation and removal, temporary cofferdam installation and removal, and HRG surveys.

The Duke habitat-based density models delineate species' density into 5 × 5 km (3.1 × 3.1 mi) grid cells (as opposed to the 10 × 10 km (6.2 × 6.2 mi) grid cells previously used in past Roberts *et al.* datasets for all species, with exception for the North Atlantic right whale). Although the density grid cells are 25 km² (9.7 mi²), the values are still reported per 100 km² (38.6 mi²). Based on the area across which different specified activities are conducted (*i.e.,* WTG and OSS foundation installation, nearshore cable landfall activities, and HRG surveys), appropriate averaged density estimates are applied to exposure and/or take calculations for each area.

For foundation installation, densities were extracted from grid cells within the Lease Area and those extending 8.9

km (5.53 mi) beyond the Lease Area boundaries. The grid cells within the 8.9 km perimeter area were incorporated to account for the largest ensonified area to the Level B harassment threshold; thereby representing the furthest extent where potential impacts to marine mammals could be expected. The density in the grid cells selected were averaged for each month to provide a mean monthly density for each marine mammal species and/or stock. In some cases, the density models combine multiple species (*i.e.,* long-finned and short-finned pilot whales, gray and harbor seals) or stocks (*i.e.,* Southern migratory coastal and the Western North Atlantic offshore bottlenose dolphin stocks), or it may not be possible to derive monthly/seasonal densities for some species so annual densities were used instead (*i.e.,* pantropical spotted dolphins, pilot whale *spp.*).

Group Size and PSO Data Considerations

The exposure estimates from the animal movement modeling or static methods described above directly informed the take estimates. In some cases, adjustments to the density-based exposure estimates may be necessary to fully account for all animals that could be taken during the specified activities. This could consist of an adjustment based on species group size or observations or acoustic detections provided in monitoring reports.

For some species, observational data from Protected Species Observers (PSOs) aboard HRG survey vessels indicate that the density-based exposure estimates may be insufficient to account for the number of individuals or type of species that may be encountered during the planned activities. As an example, pantropical spotted dolphins have been included in the requested take request based on prior PSO observation data, obtained via the 2020–2021 monitoring report from under previously issued (and subsequently modified) HRG IHAs to Dominion Energy occurring in and around the Lease Area (see RPS Group (RPS) (2018), AIS, Inc. (2020), and RPS (2021)). For other less-common species, the predicted densities from Roberts and Halpin (2022) are very low and the resulting density-based exposure estimate was less than a single animal or a typical group size for the species. In such cases, the mean group size was considered as an alternative to the density-based take estimates to account for potential impacts on a group during an activity.

Regardless of methodology used (*i.e.,* density-based, group size, PSO data), Dominion Energy requested, and NMFS proposes to authorize, take based on the highest amount of exposures estimated from any given method. Below we present the results of the methodologies described above, including distances to NMFS thresholds and take estimates associated with each activity.

WTG and OSS Foundation Installation

Here, we present the construction scenarios Dominion Energy applied to its analysis, which NMFS is carrying forward in this proposed rule, and the resulting acoustic ranges to Level A harassment and Level B harassment thresholds, exposure estimates, and take estimates from WTG and OSS foundation installation following the aforementioned modeling methodologies.

To complete the project, Dominion Energy has proposed four foundation installation construction schedules (three for WTG installation and one for OSS installation), as construction schedules cannot be fully predicted due to uncontrollable environmental factors (*e.g.,* weather) and installation schedules include variability (*e.g.,* due to drivability). Since three locations had been identified where OSSs would be constructed, the modeling relied on a single site that would result in the further propagation distance. This site was determined to be representative of all three OSS locations.

For the monopile scenarios, two types of pile driving conditions are expected for each monopile installed: a standard pile driving situation (Scenario 1) and a hard-to-drive (Scenario 2) situation. During the installation of one monopile for WTG foundations per day, either a standard or hard-to-drive scenario may be necessary, which would determine the duration of vibratory driving and the number of impact hammer strikes needed. In situations where two monopile WTGs would be installed per day (*i.e.,* Scenario 3), Dominion Energy assumed that only one monopile would consist of a hard-to-drive scenario and the other would always be a standard. Dominion Energy has committed to not installing two hard-to-drive foundations in a single day. For OSS jacket foundations, a single installation approach (*i.e.,* Scenario 4; impact pile driving only) is expected for the installation of up to two pin piles per day.

Dominion Energy has assumed that a maximum of two monopiles may be installed per day or that a maximum of two pin piles would be installed per day. No concurrent pile driving would occur. Due to the risk of pile run, Dominion Energy expects to utilize a joint vibratory-impact pile driving installation approach on all WTG and OSS foundation piles. All scenarios, including associated pile driving details, expected to occur can be found in Table 10 below.

TABLE 10—WTG AND OSS FOUNDATION INSTALLATION SCENARIOS

Installation scenario	Foundation installed [c]	Installation details	Duration of installation activity [a]
Scenario 1: Standard Driving	9.5 m diameter monopile foundation (1 pile per day).	Vibratory pile driving Impact pile driving	60 minutes. 3,240 hammer strikes (4,000 kJ).
Scenario 2: Hard-to-drive	9.5 m diameter monopile foundation (1 pile per day).	Vibratory pile driving Impact pile driving	30 minutes. 3,720 hammer strikes (4,000 kJ).
Scenario 3: One standard and one hard-to-drive [b].	9.5 m diameter monopile foundations (2 piles per day).	Vibratory pile driving Impact pile driving	90 minutes. 6,960 hammer strikes (4,000 kJ).
Scenario 4: OSS Jacket Foundation	2.8 m diameter pin piles (2 piles per day).	Vibratory pile driving Impact pile driving	120 minutes. 15,120 hammer strikes (3,000 kJ).

[a] The hammer energy of 4,000 kJ represents the maximum hammer energy; however, Dominion Energy anticipates the energy will be less than this.
[b] Two hard-to-drive piles would never be installed on the same day.
[c] Dominion Energy may build up to two foundations per day, consisting of either WTG monopiles or pin piles per jacket foundations. However, on some days, only one monopile may be built per day and would consist of a single standard driven pile or a hard-to-drive pile.

As described above, underwater noise associated with the construction of offshore components of CVOW–C would predominantly result from vibratory and impact pile driving monopile and jacket foundations. As previously described,

Dominion Energy employed Tetra Tech to conduct acoustic modeling and MAI to conduct animal movement exposure modeling to better understand sound fields produced during these activities and to estimate exposures. For installation of foundation piles, animal movement modeling was used to estimate exposures.

Presented below are the acoustic ranges to the Level A harassment and Level B harassment thresholds for WTG installation in the deeper environment (Table 11), WTG installation in the shallower water (Table 12), and OSS installation in the single representative location (Table 13). All ranges shown are assuming 10 dB of sound attenuation as Dominion Energy would employ a noise attenuation system during all vibratory and impact pile driving of monopile and jacket foundations. Although three attenuation levels were evaluated and Dominion Energy has not yet finalized its mitigation strategy, Dominion Energy and NMFS both anticipate that the noise attenuation system ultimately chosen will be capable of reliably reducing source levels by 10 dB. Therefore, modeling results assuming 10–dB attenuation are carried forward in this analysis for WTG and OSS foundation installation. See the Proposed Mitigation section for more information regarding the justification for the 10 dB assumption.

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Table 11 – Acoustic Ranges ($R_{95\%}$), In Meters, To Level A Harassment (PTS) and Level B Harassment Thresholds For The Deep WTG Location For Marine Mammal Function Hearing Groups, Assuming An Average Sound Speed Profile and 10 dB of Sound Attenuation

Foundation Installation Parameters					Distance to Marine Mammal Thresholds (m)													
					Level A Harassment (PTS)												Level B Harassment (Behavioral)	
					LFC			MFC			HFC			PP			All species	
Installation Scenario	Pile Installed	Installation Approach	Maximum Hammer Energy	Installation duration (minutes)	219 $L_{p,pk}$	183 $L_{E,24hr}$	199 $L_{E,24hr}$	230 $L_{p,pk}$	185 $L_{E,24hr}$	198 $L_{E,24hr}$	202 $L_{p,pk}$	155 $L_{E,24hr}$	173 $L_{E,24hr}$	218 $L_{p,pk}$	185 $L_{E,24hr}$	201 $L_{E,24hr}$	160 L_p	120 L_p
Scenario 1: Standard driving	9.5 m diameter monopile (1 pile per day)	Impact	4,000 kJ	85	132	4,396	–[a]	29	170	–[a]	663	2,139	–[a]	141	1,267	–[a]	6,182	–[a]
		Vibratory	n/a	60	–[a]	–[a]	141	–[a]	–[a]	0	–[a]	–[a]	103	–[a]	–[a]	12	–[a]	8,866
Scenario 2: Hard-to-drive	9.5 m diameter monopile (1 pile per day)	Impact	4,000 kJ	99	132	4,980	–[a]	29	187	–[a]	663	2,304	–[a]	141	1,358	–[a]	6,182	–[a]
		Vibratory	n/a	30	–[a]	–[a]	113	–[a]	–[a]	0	–[a]	–[a]	87	–[a]	–[a]	3	–[a]	8,866
Scenario 3: One standard and one hard-to-drive	9.5 m diameter monopile (2 piles per day)	Impact	4,000 kJ	184	132	5,663	–[a]	29	226	–[a]	663	2,884	–[a]	141	1,756	–[a]	6,182	–[a]
		Vibratory	n/a	90	–[a]	–[a]	158	–[a]	–[a]	0	–[a]	–[a]	125	–[a]	–[a]	31	–[a]	8,866

Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; Lp = root-mean square sound pressure (dB re 1 μPa); L_E = sound exposure level (dB re 1 μPa2 ·s); $L_{p,pk}$ = peak sound pressure (dB re 1 μPa)

a - Dashes (–) indicate a value that was not calculated by Tetra Tech during the acoustic modeling analysis.

Table 12 – Acoustic Ranges ($R_{95\%}$), In Meters, To Level A Harassment (PTS) and Level B Harassment Thresholds For The Shallow WTG Location For Marine Mammal Function Hearing Groups, Assuming An Average Sound Speed Profile and 10 dB of Sound Attenuation

Foundation Installation Parameters					Distance to Marine Mammal Threshold (m)													
					Level A Harassment (PTS)												Level B Harassment (Behavioral)	
					LFC			MFC			HFC			PP			All species	
Installation Scenario	Pile Installed	Installation Approach	Maximum Hammer Energy	Installation duration (minutes)	219 $L_{p,pk}$	183 $L_{E,24hr}$	199 $L_{E,24hr}$	230 $L_{p,pk}$	185 $L_{E,24hr}$	198 $L_{E,24hr}$	202 $L_{p,pk}$	155 $L_{E,24hr}$	173 $L_{E,24hr}$	218 $L_{p,pk}$	185 $L_{E,24hr}$	201 $L_{E,24hr}$	160 L_p	120 L_p
Scenario 1: Standard driving	9.5 m diameter monopile (1 pile per day)	Impact	4,000 kJ	85	128	3,138	–[a]	26	99	–[a]	607	1,659	–[a]	138	1,059	–[a]	5,503	–[a]
		Vibratory	n/a	60	–[a]	–[a]	107	–[a]	–[a]	0	–[a]	–[a]	93	–[a]	–[a]	31	–[a]	6,485
Scenario 2: Hard-to-drive	9.5 m diameter monopile (1 pile per day)	Impact	4,000 kJ	99	128	3,363	–[a]	26	108	–[a]	607	1,888	–[a]	138	1,171	–[a]	5,503	–[a]
		Vibratory	n/a	30	–[a]	–[a]	88	–[a]	–[a]	0	–[a]	–[a]	67	–[a]	–[a]	21	–[a]	6,485
Scenario 3: One standard and one hard-to-drive	9.5 m diameter monopile (2 piles per day)	Impact	4,000 kJ	184	128	4,152	–[a]	26	134	–[a]	607	2,314	–[a]	138	1,464	–[a]	5,503	–[a]
		Vibratory	n/a	90	–[a]	–[a]	135	–[a]	–[a]	0	–[a]	–[a]	110	–[a]	–[a]	36	–[a]	6,485

Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; Lp = root-mean square sound pressure (dB re 1 μPa); L_E = sound exposure level (dB re 1 μPa2 ·s); $L_{p,pk}$ = peak sound pressure (dB re 1 μPa)

a - Dashes (–) indicate a value that was not calculated by Tetra Tech during the acoustic modeling analysis.

Table 13 – Acoustic Ranges ($R_{95\%}$), In Meters, To Level A Harassment (PTS) and Level B Harassment Thresholds For The Shallow OSS Location For Marine Mammal Function Hearing Groups, Assuming An Average Sound Speed Profile and 10 dB of Sound Attenuation

Foundation Installation Parameters					Distance to Marine Mammal Thresholds (m)													
					Level A Harassment (PTS)												Level B Harassment (Behavioral)	
					LFC			MFC			HFC			PP			All species	
Installation Scenario	Pile Installed	Installation Approach	Maximum Hammer Energy	Installation duration (minutes)	219 $L_{p,pk}$	183 $L_{E,24hr}$	199 $L_{E,24hr}$	230 $L_{p,pk}$	185 $L_{E,24hr}$	198 $L_{E,24hr}$	202 $L_{p,pk}$	155 $L_{E,24hr}$	173 $L_{E,24hr}$	218 $L_{p,pk}$	185 $L_{E,24hr}$	201 $L_{E,24hr}$	160 L_p	120 L_p
Scenario 4: OSS jacket foundation	2.8 m diameter pin pile	Impact	3,000 kJ	410	0	2,680	–[a]	0	48	–[a]	197	1,435	–[a]	0	1,283	–[a]	2,172	–[a]
		Vibratory	n/a	120	–[a]	–[a]	75	–[a]	–[a]	0	–[a]	–[a]	68	–[a]	–[a]	0	–[a]	3,601

Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; Lp = root-mean square sound pressure (dB re 1 μPa); L_E = sound exposure level (dB re 1 μPa2 ·s); $L_{p,pk}$ = peak sound pressure (dB re 1 μPa)

a - Dashes (–) indicate a value that was not calculated by Tetra Tech during the acoustic modeling analysis.

Dominion Energy provided seasonal density estimates during the time of year when WTG and OSS foundations would be installed following the methodology provided in the *Density and Occurrence* section above. The resulting densities used in the exposure estimate calculations for foundation installation are provided in Table 14.

Table 14 – Mean Seasonal Density Estimates For WTG and OSS Foundation Installation (Inclusive of the 8.9 Km Perimeter Applied for the Largest Level B Harassment Zone From Vibratory Pile Driving)

Marine Mammal Hearing Group and Species		Stock	Mean Density (Individual/km^2)			
			Spring (May)	Summer (June to August)	Fall (September to October)[c]	Annual Density
LFC	North Atlantic right whale*	Western North Atlantic	0.00015	0.00004	0.00005	–
	Fin whale*	Western North Atlantic	0.00069	0.00036	0.00019	–
	Humpback whale	Gulf of Maine	0.00136	0.00023	0.00040	–
	Minke whale	Canadian East Coast	0.00519	0.00028	0.00011	–
	Sei whale*	Nova Scotia	0.00021	0.00001	0.00004	–
MFC	Sperm whale*	North Atlantic	0.00003	0.00000	0.00000	–
	Pygmy sperm whale	Western North Atlantic	n/a[a]	n/a[a]	n/a[a]	–
	Atlantic spotted dolphin	Western North Atlantic	0.00507	0.05873	0.03822	–
	Atlantic white-sided dolphin	Western North Atlantic	n/a[a]	n/a[a]	n/a[a]	–
	Bottlenose dolphin[d]	Southern Migratory Coastal	0.13098	0.13509	0.13852	–
		Western North Atlantic, Offshore	0.07352	0.07415	0.06439	–

	Clymene dolphin	Western North Atlantic	n/a[a]	n/a[a]	n/a[a]	–
	Common dolphin	Western North Atlantic	0.05355	0.00559	0.00103	–
	False killer whale	Western North Atlantic	n/a[a]	n/a[a]	n/a[a]	–
	Melon-headed whale	Western North Atlantic	n/a[a]	n/a[a]	n/a[a]	–
	Long-finned pilot whale[e]	Western North Atlantic	–[b]	–[b]	–[b]	0.00098
	Short-finned pilot whale[e]	Western North Atlantic	–[b]	–[b]	–[b]	0.00098
	Pantropical spotted dolphin	Western North Atlantic	–[b]	–[b]	–[b]	0.00008
	Risso's dolphin	Western North Atlantic	0.00084	0.00042	0.00021	–
HFC	Harbor porpoise	Western North Atlantic	0.00315	0.00000	0.00000	–
PP	Gray seal	Western North Atlantic	0.01828	0.00001	0.00047	–
	Harbor seal	Western North Atlantic	0.01828	0.00001	0.00047	–

*Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.*

a - These species were added to the list of marine mammal species that could potentially be harassed by project activities after the animat analysis was completed so no exposure estimates were calculated. Instead, a standard group size of animals was used instead for any analysis pertaining to this species.

b - For these species, monthly densities were not available. Instead, annual densities were used.

c - As no foundation installation is planned to occur in November or December, the relevant values were not included.

d - Within the Roberts and Halpin (2022) data, bottlenose dolphin densities are reported as a single "bottlenose dolphin" group and are not identified by stock. Given that the WTG and OSS foundation installation would be occurring beyond the 20-m isobath, where the stocks are split, estimated take was assumed to come from the offshore stock.

e - Pilot whale spp. Are reported as a single group (Globicephala spp.) and are not species-specific. Because of this, Dominion Energy assumed that the density was a collective pilot whale group and could be attributed to either the short-finned or long-finned species.

MAI set the modeled marine mammal animats to populate each of the model areas with the representative nominal densities provided. During the modeling, some of the obtained densities were higher than the real-world density, as to ensure that the results of the animat model simulations were not unduly influenced by the spontaneous placement of some of the simulated marine mammals and to provide additional statistical robustness within the modeling exercise. To obtain the final exposure estimates, the modeled results were normalized by the ratio of the modeled animat density to the real-world seasonal densities. The exposure estimates were derived based on the history of exposure within the modeling exercise for each marine mammal species or species group. The modeled sound exposure level (SEL) received by each animat over the duration of the construction activity period (*e.g.,* estimated 3 hours of driving on a single monopile) and the peak sound pressure level were used to calculate the potential for an individual animat to have experienced PTS, in accordance with the NOAA Fisheries (2018) physiological acoustic thresholds for marine mammals. If an animat was not predicted to have experienced PTS, then the sound energy received by each individual animat over the 24-hour modeled period was used to assess the potential risk of biologically significant behavioral reactions. The modeled RMS sound pressure levels were used to estimate the potential for behavioral responses, in accordance with the NOAA Fisheries (2005b) behavioral criteria.

For the monopile WTG installation, the exposure calculations assumed 176 WTG monopiles would be installed over two years, but also took into account the need for Dominion Energy to possibly re-pile for up to seven WTG foundations (equating to a total of 183 modeled piling events for WTGs). For the jacket foundations using pin piles for the OSSs, the modeling assumed that up to 12 pin piles (four per OSS for up to three total OSSs) would be installed over two years. Both of these were modeled in accordance with the schedule provided by Dominion Energy.

Overall, for Year 1 (2024), it was assumed that up to a maximum of 95 monopiles and all 12 pin piles would be installed. For Year 2, it was assumed that a maximum of 88 monopiles (which does account for the seven possible re-piling events that may be necessary) would be installed. As construction of the WTGs and OSSs are only anticipated to occur in the first two years of the project (2024 and 2025), animats were only calculated for these. Although schedule delays due to weather or other unforeseen activities may require Dominion Energy to not complete all piling in Year 2, but instead push a limited number of piles to Year 3 (2026), no modeling was completed for 2026. This is because any piles not completed in 2025 (Year 2) would be pushed to 2026 (Year 3), which means that the current analysis has accounted for the total scenario as the analysis for foundation installation activities in Year 2 would be less than estimated here and instead would shift some to Year 3. Please see Table 15 for the derived exposure estimates during WTG and OSS foundation installation over two years (2024 and 2025).

The exposure estimates for both the installation of WTGs and OSSs over two years (2024 and 2025) were then adjusted, for some species, based on group size characteristics known through the scientific literature and received sighting reports from previous projects and/or surveys. As indicated below, when density-based take calculations were lower than one, estimates were adjusted upwards based on group size, when density-based take calculations were too low based on PSO observations. The species-specific requested and proposed take estimates are listed below:

- North Atlantic right whale: Level B take for foundation installation adjusted for group size of 1 individual for months with monthly density <0.01 per 100 km^2 (Roberts and Halpin, 2022) when construction may occur (May–October) and 2 individuals for months with monthly density >0.01 when construction may occur (May–October);
- Fin whale: Adjusted based on protected species observer (PSO) data (max daily number × days of activity);
- Humpback whale: Adjusted based on PSO data (max daily number × days of activity);
- Sperm whale: Adjusted based on 1 group size per year (3 per Barkaszi *et al.,* 2019);
- Atlantic white-sided dolphin: Adjusted based on 1 group size per year (15 per Reeves *et al.,* 2002);
- Pantropical spotted dolphin: Adjusted based on 1 group size per year (20 per Reeves *et al.,* 2002);
- Short-beaked common dolphin: Adjusted based on 1 group size (20 individuals per group) per day (Dominion Energy, 2021);
- Clymene dolphin: Adjusted based on 1 group size (5 per AIS, Inc. (2020));
- False killer whale: Adjusted based on 1 group size per year (4 per RPS (2021));
- Melon-headed whale: Adjusted based on 1 group size per year (5 per RPS (2018)); and
- Pygmy sperm whale: Adjusted based on 1 group size per year (1 per RPS (2021)).

In Table 15, we present the calculated exposure estimates and the maximum amount of take proposed for authorization during foundation installation of WTGs and OSSs during the proposed five-year effective period for the CVOW–C project. As demonstrated by the exposure modeling results, which do not consider mitigation other than the use of a sound attenuation device(s), the potential for Level A harassment is very low. However, there may be some situations where pile driving cannot be stopped due to safety concerns related to pile instability.

As previously discussed, only 176 WTG and 3 OSS (using a maximum of 12 pin piles) foundations would be permanently installed for the CVOW–C project; however, Dominion Energy has considered the possibility that some piles may be started but not fully installed at some locations due to installation feasibility issues. Conservatively, Dominion Energy has estimated up to 7 additional pile driving events may be needed in the event this occurs. Per Dominion Energy's estimated construction schedule, it is anticipated that all of these foundation installation activities would occur in Year 1 (2024) and Year 2 (2025); therefore, the take estimates below reflect the foundation pile driving activities associated with 183 WTG foundations and 3 OSSs, to account for the seven additional re-piling events that may occur if monopiles were started in one location but then needed to be re-driven at another WTG position.

Table 15 – Exposures Estimates and Maximum Amount of Take Proposed For Authorization By Level A Harassment and Level B Harassment From Vibratory and Impact Pile Driving Associated With 183 WTG[f] and 3 OSS Total Installation Events, Assuming 10 dB of Noise Attenuation

Marine Mammal Hearing Group and Species		Stock	Estimated Exposures				Takes Proposed For Authorization			
			2024		2025		2024		2025[e]	
			Level A Harassment	Level B Harassment	Level A Harassment	Level B Harassment	Level A Harassment	Level B Harassment	Level A Harassment	Level B Harassment
LFC	North Atlantic right whale*[,c]	Western North Atlantic	1[c]	3	1[c]	2	0	6	0	6
	Fin whale*	Western North Atlantic	4	21	3	19	4	112	3	90
	Humpback whale	Gulf of Maine	4	18	4	14	4	29	4	104
	Minke whale	Canadian East Coast	8	53	7	48	8	53	7	48
	Sei whale*	Nova Scotia	1	3	1	2	1	3	1	2
MFC	Sperm whale*	North Atlantic	0	1	0	1	0	3	0	3
	Pygmy sperm whale[g]	Western North Atlantic	n/a[a]	n/a[a]	n/a[a]	n/a[a]	0	1	0	1
	Atlantic spotted dolphin	Western North Atlantic	0	2,108	0	1,896	0	2,108	0	1,896
	Atlantic white-sided dolphin[d]	Western North Atlantic	n/a[h]	n/a[h]	n/a[h]	n/a[h]	0	15	0	15

	Bottlenose dolphin[a]	Southern Migratory Coastal	0	0	0	0	0	0	0	0
		Western North Atlantic, Offshore	0	4,290	0	3,602	0	4,290	0	3,602
	Clymene dolphin[g]	Western North Atlantic	n/a[h]	n/a[h]	n/a[h]	n/a[h]	0	5	0	5
	Common dolphin	Western North Atlantic	0	594	0	559	0	1,720	0	1,380
	False killer whale[g]	Western North Atlantic	n/a[h]	n/a[h]	n/a[h]	n/a[h]	0	4	0	4
	Melon-headed whale[g]	Western North Atlantic	n/a[h]	n/a[h]	n/a[h]	n/a[h]	0	5	0	5
	Pilot whale *spp.*	Western North Atlantic	0	61	0	50	0	61	0	50
	Pantropical spotted dolphin	Western North Atlantic	0	4	0	4	0	20	0	20
	Risso's dolphin	Western North Atlantic	0	25	0	23	0	25	0	23
HFC	Harbor porpoise	Western North Atlantic	1	23	1	20	1	23	1	20
PP	Gray seal[b]	Western North Atlantic	1	62	1	53	1	62	1	53
	Harbor seal[b]	Western North Atlantic	1	62	1	53	1	62	1	53

*Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.*

a - Given foundation installation would be confined to an area beyond the 20-m isobath, all of the estimated take has been allocated to the offshore stock.

b - The take request for pinnipeds was allocated to an even 50 percent split to each harbor seal and gray seal.

c - Although Level A harassment exposure estimates were calculated for North Atlantic right whales, Dominion Energy has not requested, nor does NMFS propose to authorize, any take by Level A harassment for this species as the proposed enhanced mitigation measures would reduce these to 0.
d - Atlantic white-sided dolphins are not expected, but due to shifts in habitat use, have been included in the take request based on a standard group size annually. We note that animat/exposure modeling was not done for this species.
e - In the event that the construction schedule is delayed in 2025, some WTGs may need to be constructed in 2026 instead, which would reduce the number of WTGs constructed in 2025 but it would not change the maximum number of takes of marine mammals proposed for authorization in this proposed rule. Instead, the values shown here for 2025 would be reduced with the remaining take carried over into 2026.
f - This analysis conservatively assumes 183 independent piling events for WTG monopile foundations would occur, although only 176 permanent WTGs would be installed.
g - While these species were not originally included in Dominion Energy's request, given recorded sightings/detections of these species during previous Dominion Energy IHAs in the same general area, NMFS has included these as species that may be harassed (by Level B harassment only) during the five-year effective period of this proposed rulemaking.
h - This species was incorporated after the animat analysis was completed so no take was estimated. Instead, a standard group size of animals was used instead for any analysis pertaining to this species.

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Additionally, as previously discussed above in the *Detailed Description of Specified Activities* section, Dominion Energy's construction schedule may shift during the project due to bad weather or other uncontrollable and unforeseen events, which may require foundation installation to shift and occur in 2026 instead. However, in this situation, the maximum amount of take proposed for authorization would not change; instead, some of the take that would have occurred in 2025 would instead occur in 2026, which means that the take of marine mammals during 2025 would be less than predicted here, as those takes would be shifted into 2026.

Cable Landfall Construction

Dominion Energy has proposed to install and remove both temporary goal posts comprised of steel pipe piles (to guide the placement of casing pipes installed using a trenchless installation method that does not produce noise levels with the potential to result in marine mammal harassment) and temporary cofferdams comprised of steel sheet piles at cable landfall locations.

Temporary Cofferdams

Dominion Energy would install and remove up to nine temporary cofferdams adjacent to the firing range at the State Military Reservation in Virginia Beach using a vibratory hammer. Dominion Energy assumed that a maximum of six days would be needed to install and remove a single cofferdam (3 days to install and 3 days to remove). Vibratory pile driving would occur for up to 60 minutes per day (1 hour) and up to 20 sheet piles could be installed per day (each cofferdam would necessitate 30 to 40 sheet piles, depending on the final chosen configuration). Table 16 includes details for the cofferdam scenario.

TABLE 16—TEMPORARY COFFERDAM SCENARIO

Installation scenario	Foundation installed	Installation details	Sound source level (dB re: 1 μPa at 1 m)	Duration of installation activity for a single pile
Cofferdam Installation	Sheet piles	Vibratory pile driving	195 SEL RMS	60 minutes.

Underwater noise associated with the construction of temporary cofferdams would only result from vibratory pile driving of steel sheet piles. As already described previously, Dominion Energy employed Tetra Tech to conduct the acoustic modeling to better understand the sound fields produced during these activities. These results also utilized information provided by iTAP (see Remmers and Bellmann (2021) Attachment Z–3 in Appendix A of Dominion Energy's application).

Following a similar approach to the one described for foundation installation, Tetra Tech calculated the ranges to the defined acoustic thresholds using a maximum received level-over-depth approach where the maximum received sound level that occurs within the water column at each sampling point was used. Tetra Tech calculated both the R_{max} and the $R_{95\%}$ for each of the marine mammal regulatory thresholds. The results of this analysis are presented below in Table 17 and are presented in terms of the $R_{95\%}$ range, based on the cofferdam modeling scenario found in Table 16 above. Given the nature of vibratory pile driving and the very small distances to Level A harassment thresholds (0–108 m; assuming 10 dB of sound attenuation), which accounts for one hour of vibratory pile driving per day, vibratory driving is not expected to result in Level A harassment. As Dominion Energy did not request any Level A harassment incidental to the installation and/or removal of sheet piles for temporary cofferdams, and based on these small distances, NMFS is not proposing to authorize any in this proposed action.

TABLE 17—ACOUSTIC RANGES ($R_{95\%}$), IN METERS, TO LEVEL A HARASSMENT (PTS) AND LEVEL B HARASSMENT THRESHOLDS FROM VIBRATORY PILE DRIVING DURING SHEET PILE INSTALLATION FOR MARINE MAMMAL FUNCTION HEARING GROUPS, ASSUMING AN AVERAGE SOUND SPEED PROFILE

Activity	Pile parameters	Approach used	Distance to marine mammal thresholds				
			Level A harassment (PTS)				Level B harassment (behavior)
			LFC (199 SEL)	MFC (198 SEL)	HFC (173 SEL)	PP (201 SEL)	All (120 SPL RMS)
Temporary Cofferdams.	2.8 m diameter Pin pile.	Vibratory Pile Driving	108	0	0	0	3,097

Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds.

dBSea was used to derive the acoustic ranges to the Level B harassment threshold, assuming no sound attenuation, around the cable landfall site. This included the ensonified area that was truncated by any land, which yielded an area (approximately 1 km²) smaller than the radius of a circle (assuming 3,097 m). For the vibratory pile driving for temporary cofferdams associated with the sheet pile installation and removal, the daily ensonified area was 29.04 km² (11.21 mi²), based on the acoustic range to the Level B harassment threshold (3,097 m), with a total ensonified area of 4,980 km² (1,922.8 mi²) over 54 days of installation.

Density data from Roberts and Halpin (2022) were mapped within the boundary of the CVOW–C project area using geographic information system (GIS) software (Environmental Systems Research Institute (ESRI), 2017). To estimate marine mammal density around the temporary cofferdams, the greatest ensonified area was intersected with the density grid cells for each individual species to select all of those grid cells that the ensonified area intersects, representing the furthest extent where potential impacts to marine mammals could be expected. Maximum monthly densities (*i.e.,* the maximum density found in each grid cell) were averaged by season (spring (May), summer (June through August), and fall (September through October)). Since the timing of landfall construction activities may vary somewhat from the proposed schedule, the highest average seasonal density from May through October (Dominion Energy's planned construction period for temporary cofferdams) for each species was selected and used to estimate exposures from temporary cofferdam installation and removal (Table 18).

TABLE 18—HIGHEST AVERAGE SEASONAL MARINE MAMMAL DENSITIES FOR NEARSHORE TRENCHLESS INSTALLATION (TEMPORARY COFFERDAM AND TEMPORARY GOAL POST INSTALLATION) ACTIVITIES

Marine mammal hearing group and species	Stock	Highest average seasonal density (individual/100 km²)
LFC:		
North Atlantic right whale *	Western North Atlantic	0.024
Fin whale *	Western North Atlantic	0.041
Humpback whale	Gulf of Maine	0.054
Minke whale	Canadian East Coast	0.124
Sei whale *	Nova Scotia	0.015
MFC:		
Sperm whale *	North Atlantic	0.001
Pygmy sperm whale	Western North Atlantic	[a] n/a
Atlantic spotted dolphin	Western North Atlantic	2.370
Atlantic white-sided dolphin	Western North Atlantic	0.325
Bottlenose dolphin	Southern Migratory Coastal	17.054
Clymene dolphin	Western North Atlantic	[a] n/a
Common dolphin	Western North Atlantic	1.808
False killer whale	Western North Atlantic	[a] n/a
Melon-headed whale	Western North Atlantic	[a] n/a
Pilot whale *spp*	Western North Atlantic	0.065
Pantropical spotted dolphin	Western North Atlantic	0.007
Risso's dolphin	Western North Atlantic	0.030
HFC:		
Harbor porpoise	Western North Atlantic	0.438
PP:		
Gray seal	Western North Atlantic	1.775
Harbor seal	Western North Atlantic	1.775

Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.

[a] These species were added to the list of species that could be potentially impacted by the project after the adequate and complete date. However, given the rare occurrence of these species in the project area, proposed take was included only for foundation installation, and not for nearshore cable landfall activities.

For some species where little density information is available (*i.e.,* pilot whales), the annual density was used instead. Given overlap with the pinniped density models as the Roberts and Halpin (2022) dataset does not distinguish between some species, a collective ''pinniped'' density was used for both harbor and gray seal species and later split for the take estimates and request (Roberts *et al.,* 2016). This approach was the same as described in the WTG and OSS Foundation Installation section. Refer back to Table 18 for the densities used for temporary cofferdam installation and removal.

Given that use of the vibratory hammer during cofferdam installation and removal may occur on up to six days per cofferdam (three days for installation and three days for removal), a max total of 54 days was assumed necessary for all nine cofferdams. To calculate exposures, the highest average seasonal marine mammal densities were multiplied by the daily ensonified area (29.04 km^2) for installation and removal of sheet piles for temporary cofferdams. To yield the total estimated take for the activity, the per day take was multiplied by the ensonified area by the total number of days for the activity. To do this, the ensonified area was overlaid over the Roberts and Halpin (2022) densities to come up with a per day take which was then multiplied by 54 to account for the total number of days. This produced the results shown in Table 19. The product is then rounded, to generate an estimate of the total number of instances of harassment expected for each species over the duration of the work.

Given the small distances to the Level A harassment isopleths, Level A harassment incidental to this activity is not anticipated, even absent mitigation, although mitigation measures are proposed that would further reduce the risk. Therefore, Dominion Energy is not requesting and NMFS is not proposing to authorize Level A harassment related to cofferdam installation and removal.

Calculated take estimates for temporary cofferdams were then adjusted, for some species, based on group size characteristics known through the scientific literature and received sighting reports from previous projects and/or surveys. These group size estimates for cofferdam installation and removal are described below and were incorporated into the estimated take to yield the requested and proposed take estimate:

- Atlantic spotted dolphin: Adjusted based on 1 group size per day (20 per Dominion Energy, 2020, Jefferson *et al.,* 2015);
- Bottlenose dolphin (Combined Southern Migratory Coastal, Western North Atlantic Offshore): Adjusted based on 1 group size per day (15 per Jefferson *et al.,* 2015); and
- Common dolphin (short-beaked): Adjusted based on 1 group size per day (20 per Dominion Energy, 2021).

Given that take by Level B harassment was precautionarily proposed for authorization during two years of foundation installation for Clymene dolphins, false killer whales, melon-headed whales, and pygmy sperm whales, and given the nearshore nature of cable landfall activities, no take (and therefore, no group size adjustments) have been accounted for nearshore cable landfall activities.

Additionally, beyond group size adjustments, some slight modifications were performed for some species, including for harbor seals, gray seals, short- and long-finned pilot whales, and bottlenose dolphins. More specifically, the takes requested were accrued based on a 50/50 split for both pinniped species, as the Roberts and Halpin (2022) data does not differentiate the density by specific pinniped species. The density for pilot whales represents a single group (*Globicephala spp.*) and is not species-specific. Due to the minimal occurrence of both short-finned and long-finned pilot whales to occur in this area due to the shallow water, the requested take was allocated to a collective group, although short-finned pilot whales are more commonly seen in southern waters. Bottlenose dolphin stocks were split by the 20-m isobath cutoff, and then allocated specifically to the coastal stock of bottlenose dolphins (migratory southern coastal) due to the nearshore nature of these activities.

Below we present the estimated take and maximum amount of take proposed for authorization during temporary cofferdam installation and removal during the proposed five-year effective period for the CVOW–C project (Table 19). No take by Level A harassment is expected, nor has it been requested by Dominion Energy or proposed for authorization by NMFS. The proposed take for authorization accounts for three days for installation and 3 days for removal, for a total of six days for each of nine cofferdams (54 days total). To be conservative, Dominion Energy has requested take, by Level B harassment, based on the highest exposures predicted by the density-based take estimates, with some slight modifications to account for group sizes for some species.

Although North Atlantic right whales do migrate in coastal waters and have been seen off Virginia Beach, Virginia, they are not expected to occur in the nearshore waters where work would be occurring. The amount of work considered here is limited and would be conducted during a time when North Atlantic right whales are less likely to be migrating in this area. The distance to the Level B harassment isopleth (3.1 km) for installation and removal of the sheet piles associated with the cofferdams and the maximum distance to the Level A isopleth (0.11 km) remain in shallow waters in the nearshore environment and for a very short period of time (approximately one hour daily); thus, it is unlikely that right whales (or most species of marine mammals considered here) would be exposed to vibratory pile driving during cofferdam installation and removal at levels close to the 120 dB Level B harassment threshold or to the Level A harassment thresholds. Hence, Dominion Energy did not request take of North Atlantic right whales incidental to this activity and NMFS is not proposing to authorize it.

We note that these would be the maximum number of animals that may be harassed during vibratory pile driving for nearshore temporary cofferdams as the analysis conservatively assumes each exposure is a different animal. This is unlikely to be the case for all species shown here but is the most comprehensive assessment of the level of impact from this activity.

TABLE 19—DENSITY-BASED ESTIMATED AND MAXIMUM AMOUNT OF TAKE PROPOSED FOR AUTHORIZATION BY LEVEL B HARASSMENT FROM VIBRATORY PILE DRIVING ASSOCIATED WITH TEMPORARY COFFERDAM INSTALLATION AND REMOVAL

Marine mammal hearing group and species	Stock	Density-based estimated take	Takes of marine mammals proposed for authorization
		Level B harassment	
LFC:			
North Atlantic right whale *	Western North Atlantic	0.376	0
Fin whale *	Western North Atlantic	0.643	1
Humpback whale	Gulf of Maine	0.847	1
Minke whale	Canadian East Coast	1.945	2
Sei whale *	Nova Scotia	0.235	0
MFC:			
Sperm whale *	North Atlantic	0.016	0
Pygmy sperm whale	Western North Atlantic	[d] n/a	[d] n/a
Atlantic spotted dolphin	Western North Atlantic	37.169	240
Atlantic white-sided dolphin [c]	Western North Atlantic	5.097	5
Bottlenose dolphin	Southern Migratory Coastal	267.462	180
	Western North Atlantic, Offshore	[a] n/a	[a] n/a
Clymene dolphin	Western North Atlantic	[d] n/a	[d] n/a
Common dolphin	Western North Atlantic	28.355	240
False killer whale	Western North Atlantic	[d] n/a	[d] n/a
Melon-headed whale	Western North Atlantic	[d] n/a	[d] n/a
Pilot whale *spp*	Western North Atlantic	1.019	1
Pantropical spotted dolphin	Western North Atlantic	0.110	0
Risso's dolphin	Western North Atlantic	0.470	0
HFC:			
Harbor porpoise	Western North Atlantic	6.869	7
PP:			
Gray seal [b]	Western North Atlantic	13.919	14
Harbor seal [b]	Western North Atlantic	13.919	14

Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.

[a] Given cofferdam installation and removal would be confined to an area below the 20-m isobath, all of the estimated take has been allocated to the coastal stock.

[b] The take request for pinnipeds was allocated to an even 50 percent split to each harbor seal and gray seal.

[c] Atlantic white-sided dolphins are not expected, but due to shifts in habitat use, have been included in the take request based on a standard group size annually. We note that animat/exposure modeling was not done for this species.

[d] Given take by Level B harassment was precautionarily proposed for authorization during two years of foundation installation for these species, no take has been calculated for cable landfall construction activities.

Temporary Goal Posts

To facilitate nearshore, trenchless installation for the export cables to shore, Direct Steerable Pipe Tunneling equipment utilizing a steerable tunnel boring machine would excavate ground while goal posts are used to guide steel casing pipes behind the tunnel boring machine using a pipe thruster. Of all the equipment planned for use during the tunneling and boring activities (*i.e.,* pipe thrusting machine, pumps, motors, powerpacks, and drill mud processing system), only the impact hammer is expected to cause harassment to marine mammals as other equipment either produces low source levels. The pipe thrusting machine does not vibrate or produce any noise as it only pushes the casing pipes so no harassment to marine mammals is expected to occur from the use of this equipment. Each temporary goal post, which would be installed via impact pile driving, would consist of 1.07 m (42 in) diameter steel pipe piles. Up to two steel pipes could be installed per day for a total duration of 130 minutes per goal post. The strike rate would require approximately 260 strikes per pile with a strike duration between 0.5 and 2 seconds. Up to 12 goal posts would be needed for each of the nine Direct Pipe (temporary cofferdam) locations, equating to a total of 108 piles necessary for the goal posts. Removal of the pipe piles would occur at a rate of 2 per day over 54 days to remove all 108 piles. Unlike installation, removal of pipe piles is not expected to cause take of marine mammals as mechanical and/or hydraulic equipment is used that does not produce noise. Because of this, the analysis described below only pertains to the installation of goal posts.

Tetra Tech applied the Level A harassment cumulative PTS criteria to a specific tab (for impact pile driving) spreadsheet (called the User Spreadsheet) that reflects NOAA Fisheries' 2018 Revisions to Technical Guidance (NOAA Fisheries, 2018a). The User Spreadsheet relies on overriding default values, calculating individual adjustment factors, and using the difference between levels with and without weighting functions for each of the five categories of hearing groups. The new adjustment factors in the spreadsheets allow for the calculation of cumulative sound exposure level (SEL_{cum}) distances and peak sound exposure (PK) distances and account for the accumulation (Safe Distance Methodology) using the source characteristics (duty cycle and speed) after Silve *et al.* (2014).

To calculate the distance to the acoustic threshold for Level B harassment of marine mammals, Tetra Tech utilizing a spread calculation to estimate the horizontal distance to the 160 dB re 1 μPa isopleth:

$$SPL(r) = SL - PL(r)$$

Where:

SPL = sound pressure level (dB re 1 μPa);

r = range (m), SL = source level (dB re 1 μPa m); and
PL = propagation loss as a function of distance (calculated as $20Log_{10}(r)$).

We note that while these methodologies provided by NOAA Fisheries are able to calculate the maximum distances to the Level A harassment and Level B harassment thresholds, these calculations do not allow for the inclusion of site-specific environmental parameters, as was described for activities analyzed through dBSea.

The results of this analysis are presented below in Table 20 and are presented in terms of the $R_{95\%}$ range. Table 20 demonstrates the maximum distances to both the regulatory thresholds for Level A harassment and Level B harassment for each marine mammal hearing group. Given the very small distances to the Level A harassment thresholds (4.5–152 m; assuming 10 dB of sound attenuation), which accounts for 130 minutes (approximately 2.2 hours) of impact pile driving per day, impact driving is not expected to result in Level A harassment. As Dominion Energy did not request any Level A harassment incidental to the installation and/or removal of steel pipe piles for temporary goal posts, and based on these small distances, NMFS is not proposing to authorize any in this proposed action.

TABLE 20—RANGES, IN METERS, TO LEVEL A HARASSMENT (PTS) AND LEVEL B HARASSMENT THRESHOLDS FROM IMPACT PILE DRIVING DURING STEEL PIPE PILE INSTALLATION OF GOAL POSTS FOR MARINE MAMMAL FUNCTION HEARING GROUPS

Activity	Pile parameters	Approach used	Distance to marine mammal thresholds (in meters)				
			Level A harassment (PTS onset)				Level B harassment (behavioral)
			LFC (183 dB SEL_{cum})	MFC (185 dB SEL_{cum})	HFC (155 dB SEL_{cum})	PP (185 dB SEL_{cum})	All (160 dB RMS)
Temporary Goal Posts	1.07 m diameter Steel Pipe Piles.	Impact Pile Driving	590.9	21.0	703.8	316.2	1,450

Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds.

Given the small distances to Level A harassment isopleths, Level A harassment incidental to this activity is not anticipated, even absent mitigation, although mitigation measures are proposed that would further reduce the risk. Therefore, Dominion Energy is not requesting and NMFS is not proposing to authorize Level A harassment related to goal post installation. The acoustic ranges to the Level B harassment threshold, assuming no sound attenuation, were used to calculate the ensonified area around the cable landfall site. The Ensonified Area is calculated as the following:

$$Ensonified\ Area = pi \times r^2,$$

Where:

r is the linear acoustic range distance from the source to the isopleth to the Level B harassment thresholds.

To accurately account for the greatest level of impact (via behavioral harassment) to marine mammals, Tetra Tech applied the evaluated maximum Level B harassment distance (1,450 m) as the basis for determining potential takes. To get an accurate value of the total ensonified area within the aquatic environment, the isopleth was overlaid on a map to determine if any truncation by land would occur due to the nearshore proximity of the goal posts. For the vibratory pile driving for temporary cofferdams associated with the sheet pile installation and removal, it was assumed that the daily ensonified area was 4.98 km² (1.92 mi²), or a total ensonified area of 268.92 km² (103.83 mi²) over 54 days of installation and removal. The daily ensonified area that resulted from this analysis (4.98 km²) was carried forward into the take estimates as the daily ensonified area.

In the same approach as was undertaken by the temporary cofferdams, the greatest ensonified area was intersected with the density grid cells for each individual species to select all of those grid cells that the ensonified area intersects to estimate the marine mammal density relevant to the temporary goal posts. Maximum monthly densities (*i.e.,* the maximum density found in each grid cell) were averaged by season. Since the timing of landfall construction activities may vary somewhat from the proposed schedule, the highest average seasonal density from May through October (Dominion Energy's planned construction period for temporary goal posts) for each species was selected and used to estimate exposures from temporary goal post installation. For some species where little density information is available (*i.e.,* pilot whale *spp,* pantropical spotted dolphins), the annual density was used instead. Given overlap with the pinniped density models as the Roberts and Halpin (2022) dataset does not distinguish between some species, a collective ''pinniped'' density was used for both harbor and gray seal species and later split for the take estimates and request (Roberts *et al.,* 2016). This approach was the same as described in the temporary cofferdams. Furthermore, given the densities are the same as what was calculated for temporary cofferdams, we reference the reader back to Table 18 above.

To calculate exposures, the highest average seasonal marine mammal densities from Table 18 were multiplied by the daily ensonified area (4.98 km²) for installation and removal of steel pipe piles for temporary goal posts. Given that use of the impact hammer during goal post installation may occur at a rate of 2 pipe piles per day for a total of 54 days (based on 108 total steel pipe piles), the daily estimated take was multiplied by 54 to produce the results shown in Table 21. The product is then rounded, to generate an estimate of the total number of instances of harassment expected for each species over the duration of the work. Again, as previously noted, no take was calculated for the removal of goal posts due to the equipment planned for use.

The take estimates for Level B harassment related to temporary goal post installation were then adjusted, for some species, based on group size characteristics known through the scientific literature and received sighting reports from previous projects and/or surveys. These group size estimates for temporary goal post installation are described below and

were incorporated into the estimated take to yield the requested and proposed take estimate:

- Atlantic spotted dolphin: Adjusted based on 1 group size per day (20 per Dominion Energy, 2020; Jefferson *et al.,* 2015);
- Bottlenose dolphin (Southern Migratory Coastal Stock): Adjusted based on 1 group size per day (15 per Jefferson *et al.,* 2015); and
- Short-beaked common dolphin: Adjusted based on 1 group size per day (20 per Dominion Energy, 2021).

Given that take by Level B harassment was precautionarily proposed for authorization during two years of foundation installation for Clymene dolphins, false killer whales, melon-headed whales, and pygmy sperm whales, and given the nearshore nature of cable landfall activities, no take (and therefore, no group size adjustments) have been accounted for nearshore cable landfall activities.

Additionally, beyond group size adjustments, some slight modifications were performed for some species, including for harbor seals, gray seals, short- and long-finned pilot whales, and bottlenose dolphins. More specifically, the takes requested were accrued based on a 50/50 split for both pinniped species, as the Roberts and Halpin (2022) data does not differentiate the density by specific pinniped species. The density for pilot whales represents a single group (*Globicephala spp.*) and is not species-specific. Due to the occurrence of both short-finned and long-finned pilot whales to occur in this area, the requested take was allocated to a collective group, although short-finned pilot whales are commonly seen in southern waters. Bottlenose dolphin stocks were split by the 20-m isobath cutoff, and then allocated specifically to the coastal stock of bottlenose dolphins (migratory southern coastal) due to the nearshore nature of these activities. Lastly, due to the size of the Level B harassment isopleth (1,450 m), Dominion Energy has proposed a 1,500 m (1,640.4 ft) shutdown zone to exceed this distance. However, given the proximity to land, large whales are not anticipated to occur this close to nearshore activities. Because of the proposed mitigation zone and the nearshore location of the temporary goal posts, Dominion Energy has requested, and NMFS has proposed, to adjust the proposed takes for large whales (*i.e.,* mysticetes and sperm whales) to zero.

Below we present the estimated take and maximum amount of take proposed for authorization during temporary goal post installation during the proposed five-year effective period for the CVOW–C project (Table 21). No take by Level A harassment is expected, nor has it been requested by Dominion Energy or proposed for authorization by NMFS. These proposed take estimates take into account 54 days total for temporary goal post activities, including installation and removal, at a rate of 2 steel pipe piles installed per day over 130 minutes.

TABLE 21—DENSITY-BASED ESTIMATED AND MAXIMUM AMOUNT OF TAKE BY LEVEL B HARASSMENT FROM IMPACT PILE DRIVING ASSOCIATED WITH TEMPORARY GOAL POST INSTALLATION

Marine mammal hearing group and species	Stock	Density-based estimated take	Requested take of marine mammals
		Level B harassment	
LFC:			
North Atlantic right whale *	Western North Atlantic	0.065	0
Fin whale *	Western North Atlantic	0.110	0
Humpback whale	Gulf of Maine	0.145	0
Minke whale	Canadian East Coast	0.333	0
Sei whale *	Nova Scotia	0.040	0
MFC:			
Sperm whale *	North Atlantic	0.003	0
Pygmy sperm whale	Western North Atlantic	[d] n/a	[d] n/a
Atlantic spotted dolphin	Western North Atlantic	6.373	360
Atlantic white-sided dolphin [c]	Western North Atlantic	0.874	1
Bottlenose dolphin	Southern Migratory Coastal	45.862	270
	Western North Atlantic, Offshore	[a] n/a	[a] n/a
Clymene dolphin	Western North Atlantic	[d] n/a	[d] n/a
Common dolphin	Western North Atlantic	4.862	360
False killer whale	Western North Atlantic	[d] n/a	[d] n/a
Melon-headed whale	Western North Atlantic	[d] n/a	[d] n/a
Pilot whale *spp.*	Western North Atlantic	0.175	0
Pantropical spotted dolphin	Western North Atlantic	0.019	0
Risso's dolphin	Western North Atlantic	0.081	0
HFC:			
Harbor porpoise	Western North Atlantic	1.178	1
PP:			
Gray seal [b]	Western North Atlantic	2.387	2
Harbor seal [b]	Western North Atlantic	2.387	2

Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.

[a] Given temporary goal post installation would be confined to an area below the 20-m isobath, all of the estimated take has been allocated to the coastal stock.

[b] The take request for pinnipeds was allocated to an even 50 percent split to each harbor seal and gray seal.

[c] Atlantic white-sided dolphins are not expected, but due to shifts in habitat use, have been included in the take request based on a standard group size annually. We note that animat/exposure modeling was not done for this species.

[d] Given take by Level B harassment was precautionarily proposed for authorization during two years of foundation installation for these species, no take has been calculated for cable landfall construction activities.

We note that these would be the maximum number of animals that may be harassed during impact pile driving for nearshore temporary goal posts as the analysis conservatively assumes each exposure is a different animal. This is unlikely to be the case for all species shown here but is the most comprehensive assessment of the level of impact from this activity.

HRG Surveys

Dominion Energy's proposed HRG survey activities includes the use of impulsive (*i.e.,* boomers and sparkers) and non-impulsive (*i.e.,* CHIRP SBPs) sources. Refer back to Table 4 for a representative list of the acoustic sources and their operational parameters. Authorized takes would be by Level B harassment only, in the form of disruption of behavioral patterns for individual marine mammals resulting from exposure to noise from certain HRG acoustic sources. Based primarily on the characteristics of the signals produced by the acoustic sources planned for use, Level A harassment is neither anticipated, even absent mitigation, nor proposed to be authorized. Consideration of the anticipated effectiveness of the mitigation measures (*i.e.,* pre-start clearance and shutdown measures), discussed in detail below in the Proposed Mitigation section, further strengthens the conclusion that Level A harassment is not a reasonably expected outcome of the survey activity. Therefore, the potential for Level A harassment is not evaluated further in this document. Dominion Energy did not request, and NMFS is not proposing to authorize, take by Level A harassment incidental to HRG surveys. Please see Dominion Energy's application for the CVOW–C project for details of a quantitative exposure analysis (*i.e.,* calculated distances to Level A harassment isopleths and Level A harassment exposures). No serious injury or mortality is anticipated to result from HRG survey activities.

Specific to HRG surveys, in order to better consider the narrower and directional beams of the sources, NMFS has developed a tool for determining the sound pressure level (SPL_{rms}) at the 160-dB isopleth for the purposes of estimating the extent of Level B harassment isopleths associated with HRG survey equipment (NMFS, 2020). This methodology incorporates frequency-dependent absorption and some directionality to refine estimated ensonified zones. Tetra Tech used NMFS' methodology with additional modifications to incorporate a seawater absorption formula and account for energy emitted outside of the primary beam of the source. For sources that operate with different beamwidths, the maximum beam width was used, and the lowest frequency of the source was used when calculating the frequency-dependent absorption coefficient (see Table 4).

NMFS considers the data provided by Crocker and Fratantonio (2016) to represent the best available information on source levels associated with HRG equipment and, therefore, recommends that source levels provided by Crocker and Fratantonio (2016) be incorporated in the method described above to estimate ranges to the Level A harassment and Level B harassment isopleths. In cases when the source level for a specific type of HRG equipment is not provided in Crocker and Fratantonio (2016), NMFS recommends that either the source levels provided by the manufacturer be used, or, in instances where source levels provided by the manufacturer are unavailable or unreliable, a proxy from Crocker and Fratantonio (2016) be used instead. Tetra Tech utilized the following criteria for selecting the appropriate inputs into the NMFS User Spreadsheet Tool (NMFS, 2018):

(1) For equipment that was measured in Crocker and Fratantonio (2016), the reported source level for the most likely operational parameters was selected.

(2) For equipment not measured in Crocker and Fratantonio (2016), the best available manufacturer specifications were selected. Use of manufacturer specifications represent the absolute maximum output of any source and do not adequately represent the operational source. Therefore, they should be considered an overestimate of the sound propagation range for that equipment.

(3) For equipment that was not measured in Crocker and Fratantonio (2016) and did not have sufficient manufacturer information, the closest proxy source measured in Crocker and Fratantonio (2016) was used.

The Dura-spark measurements and specifications provided in Crocker and Fratantonio (2016) were used for all sparker systems proposed for the HRG surveys. These included variants of the Dura-spark sparker system and various configurations of the GeoMarine Geo-Source sparker system. The data provided in Crocker and Fratantonio (2016) represent the most applicable data for similar sparker systems with comparable operating methods and settings when manufacturer or other reliable measurements are not available. Crocker and Fratantonio (2016) provide S-Boom measurements using two different power sources (CSP–D700 and CSP–N). The CSP–D700 power source was used in the 700 joules (J) measurements but not in the 1,000 J measurements. The CSP–N source was measured for both 700 J and 1,000 J operations but resulted in a lower source level; therefore, the single maximum source level value was used for both operational levels of the S-Boom.

Table 22 identifies all the representative survey equipment that operates below 180 kHz (*i.e.,* at frequencies that are audible and have the potential to disturb marine mammals) that may be used in support of planned survey activities, and are likely to be detected by marine mammals given the source level, frequency, and beamwidth of the equipment. This table also provides all operating parameters used to calculate the distances to threshold for marine mammals.

TABLE 22—SUMMARY OF REPRESENTATIVE HRG SURVEY EQUIPMENT WITH OPERATING PARAMETERS TO CALCULATE HARASSMENT DISTANCES FOR MARINE MAMMALS

Equipment classification	Survey equipment	Operating frequency (kHz)	Source level (SL_{RMS}) (dB re 1μPa)
Multibeam Echosounder	R2Sonics 2026	170–450	191
Synthetic Aperture Sonar, combined bathymetric/sidescan.	Kraken Aquapix [a]	337	N/A
Sidescan Sonar	Edgetech 4200 dual frequency [a]	300 and 600	N/A
Parametric SBP	Innomar SES–2000 Medium 100	2–22	241
Non-Parametric SBP	Edgetech 216 CHIRP	2–16	193
	Edgetech 512 CHIRP	0.5–12	177

TABLE 22—SUMMARY OF REPRESENTATIVE HRG SURVEY EQUIPMENT WITH OPERATING PARAMETERS TO CALCULATE HARASSMENT DISTANCES FOR MARINE MAMMALS—Continued

Equipment classification	Survey equipment	Operating frequency (kHz)	Source level (SL_{RMS}) (dB re 1μPa)
Medium Penetration SBP	GeoMarine Dual 400 Sparker 800 J	0.25–4	200
	Applied Acoustics S-Boom (Triple Plate Boomer 1000 J).	0.5–3.5	203

Note: dB re 1 μPa m—decibels referenced to 1 MicroPascal at 1 meter; kHz—kilohertz.
[a] Operating frequencies are above marine mammal hearing thresholds.

Results of modeling using the methodology described above indicated that, of the HRG equipment planned for use by Dominion Energy that has the potential to result in Level B harassment of marine mammals, sound produced by the GeoMarine Dual 400 sparker would propagate furthest to the Level B harassment isopleth (100 m (328 ft); Table 23). For the purposes of take estimation, it was conservatively assumed that sparker would be the dominant acoustic source for all survey days (although, again, this may not always be the case). Thus, the range to the isopleth corresponding to the threshold for Level B harassment for and the boomer and sparkers (100 m) was used as the basis of take calculations for all marine mammals. This is a conservative approach, as the actual sources used on individual survey days, or during a portion of a survey day, may produce smaller distances to the Level B harassment isopleth.

TABLE 23—SUMMARY OF REPRESENTATIVE HRG SURVEY EQUIPMENT DISTANCES TO THE LEVEL B HARASSMENT THRESHOLD

Equipment classification	Survey equipment	Distance (m) to Level B harassment threshold
Multibeam Echosounder	R2Sonics 2026	0.3
Synthetic Aperture Sonar, combined bathymetric/sidescan	Kraken Aquapix [a]	N/A
Sidescan Sonar	Edgetech 4200 dual frequency [a]	N/A
Parametric SBP	Innomar SES–2000 Medium 100	0.7
Non-Parametric SBP	Edgetech 216 CHIRP	10.2
	Edgetech 512 CHIRP	2.4
Medium Penetration SBP	GeoMarine Dual 400 Sparker 800 J	100.0
	Applied Acoustics S-Boom (Triple Plate Boomer 1000 J)	21.9

Note: dB re 1 μPa m—decibels referenced to 1 MicroPascal at 1 meter; kHz—kilohertz
[a] Operating frequencies are above marine mammal hearing thresholds.

To estimate densities for the HRG surveys occurring both within the Lease Area and within the Export Cable Routes for the CVOW–C project based on the Roberts and Halpin (2022) dataset the relevant density models using GIS (ESRI, 2017) were overlaid to the CVOW–C project and survey area. The boundary of the CVOW–C HRG project area corresponds to the Lease Area and Export Cable Routes, for which the area was not increased due to an additional perimeter, as was done for foundation installation. For each survey segment, the average densities (*i.e.,* the average density of each grid cell) was averaged by season over the survey duration (spring, summer, fall, and winter) for the entire HRG survey area. The average seasonal density within the HRG survey area was then selected for inclusion into the take calculations. Refer to Table 25 for the densities used for HRG surveys.

As previously stated, of the HRG equipment planned for use by Dominion Energy that has the potential to result in Level B harassment of marine mammals, sound produced by the GeoMarine Dual 400 sparker would propagate furthest to the Level B harassment isopleth (100 m). This maximum range to the Level B harassment threshold and the estimated trackline distance traveled per day by a given survey vessel (*i.e.,* 58 km (36 mi); Table 24), assuming a travel speed of 1.3 kts (1.49 miles per hour), were then used to calculate the daily ensonified area, or zone of influence (ZOI) around the survey vessel.

TABLE 24—SURVEY DURATIONS AND DAILY/ANNUAL TRACKLINE DISTANCES PLANNED TO OCCUR DURING THE PROPOSED CVOW–C PROJECT

Survey year	Survey segment	Number of active survey vessel days	Estimated distances per day (km)	Annual line kilometers
2024	Pre-lay surveys	65		3,770
2025	As-built surveys and pre-lay surveys	249		14,442
2026	As-built surveys	58	58	3,364
2027	Post-construction surveys	368		21,344

TABLE 24—SURVEY DURATIONS AND DAILY/ANNUAL TRACKLINE DISTANCES PLANNED TO OCCUR DURING THE PROPOSED CVOW–C PROJECT—Continued

Survey year	Survey segment	Number of active survey vessel days	Estimated distances per day (km)	Annual line kilometers
2028	Post-construction surveys	368		21,344

The ZOI is a representation of the maximum extent of the ensonified area around a HRG sound source over a 24-hr period. The ZOI for each piece of equipment operating at or below 180 kHz was calculated per the following formula:

$$Mobile\ Source\ ZOI = (Distance/day \times 2r) + pi \times r^2$$

Where:

Distance/day is the maximum distance a survey vessel could travel in a 24-hour period; and

r is the linear distance from the source to the harassment threshold.

The largest daily ZOI (111.6 km² (4.48 mi²)), associated with the proposed use of the sparker, was applied to all planned survey days.

As previously described, this assumes a total length of surveys that will occur within the CVOW–C project area as 64,264 km² (24,812.5 mi²). As Dominion Energy is not sure of the exact geographic locations of the survey effort, these values cannot discreetly be broken up between the Lease Area and the Export Cable Routes. However, the values presented in Table 24 provide a comprehensive accounting of the total annual survey effort anticipated to occur.

For HRG surveys, density data from Roberts and Halpin (2022) were mapped within the boundary of the CVOW–C project area using GIS software (ESRI, 2017). The boundary of the CVOW–C HRG project area corresponds to the Lease Area and Export Cable Routes, for which the area was not increased due to an additional perimeter, as was done for foundation installation. For each survey segment, the average densities (*i.e.,* the average density of each grid cell) was averaged by season over the survey duration (spring, summer, fall, and winter) for the entire HRG survey area. The average seasonal density within the HRG survey area was then selected for inclusion into the take calculations. The potential Level B density-based harassment exposures are estimated by multiplying the average seasonal density of each species within the survey area by the daily ZOI. That product was then multiplied by the number of planned survey days in each sector during the approximately 5-year construction timeframe (refer back to Table 5 and 24) and the product was rounded to the nearest whole number. As described above, this is a conservative estimate as it assumes the HRG source that results in the greatest isopleth distance to the Level B harassment threshold would be operated at all times during the entire survey, which may not ultimately occur. These density values are found in Table 25.

TABLE 25—HIGHEST AVERAGE SEASONAL MARINE MAMMAL DENSITIES FOR HRG SURVEY ACTIVITIES

Marine mammal hearing group and species	Stock	Highest average seasonal density (individual/ 100 km²)
LFC:		
North Atlantic right whale *	Western North Atlantic	0.095
Fin whale *	Western North Atlantic	0.080
Humpback whale	Gulf of Maine	0.103
Minke whale	Canadian East Coast	0.344
Sei whale *	Nova Scotia	0.038
MFC:		
Sperm whale *	North Atlantic	0.002
Pygmy sperm whale	Western North Atlantic	[a] n/a
Atlantic spotted dolphin	Western North Atlantic	4.649
Atlantic white-sided dolphin	Western North Atlantic	0.678
Bottlenose dolphin	Combined Southern Migratory Coastal, Western North Atlantic Offshore.	24.157
Clymene dolphin	Western North Atlantic	[a] n/a
Common dolphin	Western North Atlantic	6.599
False killer whale	Western North Atlantic	[a] n/a
Melon-headed whale	Western North Atlantic	[a] n/a
Pilot whale *spp*	Western North Atlantic	0.065
Pantropical spotted dolphin	Western North Atlantic	0.007
Risso's dolphin	Western North Atlantic	0.057
HFC:		
Harbor porpoise	Western North Atlantic	1.477
PP:		
Gray seal	Western North Atlantic	5.402
Harbor seal	Western North Atlantic	5.402

Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.

[a] This species was incorporated after the animat analysis was completed so no take was estimated. Instead, a standard group size of animals was used instead for any analysis pertaining to this species.

For most species or species groups, monthly densities are available, though in some cases insufficient data are available or we are unable to differentiate species groups by individual *genus* (*e.g.,* gray and harbor seals). In these situations, additional adjustments are necessary and are described here. For pinnipeds, the density values derived from the Roberts and Halpin (2022) data were considered unrealistic given a reduced summer occurrence near the CVOW–C project area in the summer (Hayes *et al.,* 2021). Based on information found in Hayes *et al.* (2021), a conservative density estimate of 0.00001 animals/km^2 was used to represent the summer density of both pinniped species within the modeled CVOW–C project area and Lease Area plus the 8.9 km perimeter. Any take by Level B harassment derived from these densities would be further split by an even percentage (50/50) for each species. For bottlenose dolphins, due to specific environmental characteristics that were used to partition the Southern Migratory Coastal and Western North Atlantic Offshore stocks, both the coastal and the offshore stocks were divided based on the location of the 20-m isobath. Information by Hayes *et al.* (2021) indicates a boundary between the two stocks at the 20-m isobath located north of Cape Hatteras, North Carolina. Therefore, all bottlenose dolphins whose grid cells were less than the 20-m isobath in the CVOW–C modeling area or within the 8.9 km of the Lease Area were allocated to the Southern Migratory Coastal stock. All density grid cells greater than the 20-m isobath from the CVOW–C modeling area or within the 8.9 km of the Lease Area were allocated to the offshore stock. The number of marine mammals expected to be incidentally taken per day is then calculated by estimating the number of each species predicted to occur within the daily ensonified area (animals/km^2), incorporating the maximum seasonal estimated marine mammal densities as described above. Estimated numbers of each species taken per day across all survey sites are then multiplied by the total number of survey days annually. The product is then rounded, to generate an estimate of the total number of instances of harassment expected for each species over the duration of the survey. A summary of this method is illustrated in the following formula:

$$\textit{Estimated Take} = D \times ZOI \times \#\ \textit{of days}$$

Where:

D is the average seasonal density for each species; and

ZOI is the maximum daily ensonified area to the harassment threshold.

The take estimates were then adjusted, for some species, based on group size and sighting reports from previous projects and/or surveys. These group size estimates for HRG surveys are described below and were incorporated into the estimated take to yield the requested and proposed take estimate:

- Atlantic white-sided dolphin: Adjusted based on 1 group size per year (15 per Reeves *et al.,* 2002);
- Risso's dolphin: Adjusted based on 1 group size per year (25 per Dominion Energy, 2021; Jefferson *et al.,* 2015);
- Bottlenose dolphin (Combined Southern Migratory Coastal, Western North Atlantic Offshore): Adjusted based on 1 group size per day (15 per Jefferson *et al.,* 2015);
- Pantropical spotted dolphins: Adjusted based on 1 group size per day (20 individuals);
- Common dolphins: Adjusted based on 1 group size per day (20 individuals);
- Common dolphins: Adjusted based on 1 group size per year (20 individuals); and
- Pilot whale *spp.:* Adjusted based on 1 group size per year (20 individuals).

Given the very small zone sizes associated with HRG surveys, no take in addition to that requested, and proposed to be authorized, for foundation installation (which has much larger sizes) is proposed to be authorized for the following species: false killer whales, melon-headed whales, and pygmy sperm whales. Clymene dolphins are from the Stenella *sp.* so shutdown would be waived for this species given their prevalence to bow-ride. Because of this, no take (and therefore, no group size adjustments) have been accounted for these species from HRG survey activities.

Similar to other activities, the density-based exposure estimates were adjusted due to the manner in which density data is presented in the Duke models for harbor seals, gray seals, short- and long-finned pilot whales, and bottlenose dolphins. More specifically, the takes requested were split 50/50 for both pinniped species, as the Roberts and Halpin (2022) data does not differentiate the density by specific pinniped species. The density for pilot whales represents a single group (*Globicephala spp.*) and is not species-specific. Due to the occurrence of both short-finned and long-finned pilot whales to occur in this area, the requested take was allocated to a collective group, although short-finned pilot whales are commonly seen in southern waters. Due to an inability to spatial resolution at the current state of the survey planning, bottlenose dolphin stocks were combined into a single group for both the coastal stock of bottlenose dolphins (Migratory Southern Coastal) and the offshore stock (Western North Atlantic Offshore).

Below we present the maximum amount of take proposed for authorization during HRG surveys occurring during the proposed five-year effective period for the CVOW–C project (Table 26). No take by Level A harassment is expected, nor has it been requested by Dominion Energy or proposed for authorization by NMFS. We note that these would be the maximum number of animals that may be harassed during HRG surveys as the analysis conservatively assumes each exposure is a different animal. This is unlikely to be the case for all species shown here but is the most comprehensive assessment of the level of impact from this activity.

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Table 26 – Density-based Estimated and Take Proposed For Authorization, By Level B Harassment, From HRG Surveys Over 5-years

Marine Mammal Hearing Group and Species		Stock	Annual Density-based Estimated Take From HRG Surveys						Annual Take Proposed For Authorization From HRG Surveys					
			2024	2025	2026	2027	2028	2029	2024	2025	2026	2027	2028	2029[a]
LFC	North Atlantic right whale*	Western North Atlantic	0.318	1.217	0.283	1.798	1.798	0	0	1	0	2	2	0
	Fin whale*	Western North Atlantic	0.378	1.448	0.337	2.140	2.140	0	0	1	0	2	2	0
	Humpback whale	Gulf of Maine	0.454	1.738	0.405	2.569	2.569	0	0	2	0	3	3	0
	Minke whale	Canadian East Coast	0.786	3.012	0.702	4.452	4.452	0	1	3	1	4	4	0
	Sei whale*	Nova Scotia	0.144	0.550	0.128	0.813	0.813	0	0	1	0	1	1	0
MFC	Sperm whale*	North Atlantic	0.008	0.029	0.007	0.043	0.043	0	0	0	0	0	0	0
	Pygmy sperm whale	Western North Atlantic	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]
	Atlantic spotted dolphin	Western North Atlantic	13.618	52.168	12.152	77.100	77.100	0	1,300	4,980	1,160	7,360	7,360	0
	Atlantic white-sided dolphin	Western North Atlantic	2.397	9.182	2.139	13.571	13.571	0	15	15	15	15	15	0

	Bottlenose dolphin	Southern Migratory Coastal and Western North Atlantic - Offshore	109.021	417.634	97.280	617.227	617.227	0	975	3,735	870	5,520	5,520	0
	Clymene dolphin	Western North Atlantic	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]
	Common dolphin	Western North Atlantic	22.730	87.072	20.282	128.685	128.685	0	1,300	4,980	1,160	7,360	7,360	0
	False killer whale	Western North Atlantic	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]
	Melon-headed whale	Western North Atlantic	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]	n/a[b]
	Pilot whale *spp.*	Western North Atlantic	0.491	1.883	0.439	2.783	2.783	0	20	20	20	20	20	0
	Pantropical spotted dolphin	Western North Atlantic	0.053	0.203	0.047	0.300	0.300	0	20	20	20	20	20	0
	Risso's dolphin	Western North Atlantic	0.280	1.072	0.250	1.584	1.584	0	25	25	25	25	25	0
HFC	Harbor porpois	Western North	5.278	20.218	4.710	29.881	29.881	0	5	20	5	30	30	0

	e	Atlantic												
PP	Gray seal	Western North Atlantic	5.070	19.422	4.524	28.704	28.704	0	5	19	5	29	29	0
	Harbor seal	Western North Atlantic	5.070	19.422	4.524	28.704	28.704	0	5	19	5	29	29	0

*Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.*

Note: - indicates no group size adjustment was used.

a - Although the proposed rule, if promulgated, would have an effective period for five full years (from early 2024 to early 2029), no work is anticipated to occur in 2029 which means no take has been requested or proposed for 2029.

b - Given take by Level B harassment was precautionarily proposed for authorization during two years of foundation installation for these species, no take has been calculated for HRG survey activities.

Total Proposed Takes Across All Activities

The amount of Level A harassment and Level B harassment proposed to be authorized for all activities considered in this proposed rule (WTG and OSS foundation installation, cable landfall construction, and HRG surveys) are presented in Table 27. The mitigation and monitoring measures provided in the Proposed Mitigation and Proposed Monitoring and Reporting sections are activity-specific and are designed to minimize acoustic exposures to marine mammal species.

The take numbers NMFS proposes for authorization (Table 27) are considered the maximum number that could occur (*i.e.,* there are multiple reasons that there could be fewer) for the following key reasons:

- The proposed take accounts for 183 pile driving events when only 176 foundations may be installed. It could be that no piles will require the need to be re-driven.
- The amount of Level A harassment proposed to be authorized considered the maximum of up to two monopiles per day being installed and use of acoustic ranges which does not account for animal movement.
- The amount of take, by Level A harassment, proposed to be authorized does not account for the likelihood that marine mammals would avoid a stimulus when possible before the individual accumulates enough acoustic energy to potentially cause auditory injury.
- All take estimates assume all piles are installed in the month with the highest average seasonal and/or annual densities for each marine mammal species and/or stock based on the construction schedule.
- Dominion Energy assumed the maximum number of temporary cofferdams (up to nine) and goal posts (up to 108) would be installed when, during construction, fewer piles may be installed and, in the case of cofferdams, may not be installed at all (Dominion Energy may use a gravity-cell structure in lieu of cofferdams which would not generate noise levels that would result in marine mammal harassment).
- The amount of take, by Level B harassment, proposed to be authorized does not account for the effectiveness of the proposed monitoring and mitigation measures, with the exception of use of noise attenuation device, for any species.

The Year 1 take estimates include HRG surveys, vibratory and impact installation of WTG and OSS foundations, the impact installation and removal of temporary goal posts, and the vibratory installation and removal of temporary cofferdams. Year 2 includes HRG surveys and the vibratory and impact installation of WTG and OSS foundations. Years 3, 4, and 5 each include HRG surveys. Dominion Energy has noted that Year 3 may include some installation of foundation piles for WTGs if they fall behind their construction schedule. However, if this occurs, this would just reduce the number of WTGs installed in Year 2. Exact durations for HRG surveys in each construction are not given although estimates are provided above and are repeated here: 65 days in 2024, 249 days in 2025, 58 days in 2026, and 368 days in each of 2027 and 2028. These estimates are based on the effort of two concurrently operating survey vessels.

Table 27 shows the estimated take of each species for each year based on the planned distribution of activities. Tables 28 and 29 show the total take over five years and the maximum take proposed for authorization in any one year, respectively.

Table 27 – Proposed Level A Harassment and Level B Harassment Takes For All Activities Over 5 Years (2024-2029)

Marine Mammal Hearing Group and Species		Stock	Total Annual Take											
			2024[c]		2025[c]		2026		2027		2028		2029[a]	
			Level A harassment	Level B harassment	Level A harassment	Level B harassment	Level A harassment	Level B harassment	Level A harassment	Level B harassment	Level A harassment	Level B harassment	Level A harassment	Level B harassment
LFC	North Atlantic right whale*	Western North Atlantic	0	6	0	7	0	0	0	2	0	2	0	0
	Fin whale*	Western North Atlantic	4	113	3	91	0	0	0	2	0	2	0	0
	Humpback whale	Gulf of Maine	4	130	4	106	0	0	0	3	0	3	0	0
	Minke whale	Canadian East Coast	8	56	7	51	0	1	0	4	0	4	0	0
	Sei whale*	Nova Scotia	1	3	1	3	0	0	0	1	0	1	0	0
MFC	Sperm whale*	North Atlantic	0	3	0	3	0	0	0	0	0	0	0	0
	Pygmy sperm whale[b]	Western North Atlantic	0	1	0	1	0	0	0	0	0	0	0	0
	Atlantic spotted dolphin	Western North Atlantic	0	4,008	0	6,876	0	1,160	0	7,360	0	7,360	0	0
	Atlantic	Wester	0	36	0	30	0	15	0	15	0	15	0	0

	white-sided dolphin	n North Atlantic												
	Bottlenose dolphin	Western North Atlantic - Offshore	0	4,290	0	3,602	0	0	0	0	0	0	0	0
		Southern Migratory Coastal	0	450	0	0	0	0	0	0	0	0	0	0
		Southern Migratory Coastal and Western North Atlantic - Offshore	0	975	0	3,735	0	870	0	5,520	0	5,520	0	0
	Clymene dolphin[b]	Western North Atlantic	0	5	0	5	0	0	0	0	0	0	0	0
	Common Dolphin	Western North Atlantic	0	3,620	0	6,360	0	1,160	0	7,360	0	7,360	0	0
	False killer whale[b]	Western North Atlantic	0	4	0	4	0	0	0	0	0	0	0	0
	Melon-	Wester	0	5	0	5	0	0	0	0	0	0	0	0

	headed whale[b]	n North Atlantic												
	Pilot whale *spp.*	Western North Atlantic	0	82	0	70	0	20	0	20	0	20	0	0
	Pantropical spotted dolphin	Western North Atlantic	0	40	0	40	0	20	0	20	0	20	0	0
	Risso's dolphin	Western North Atlantic	0	50	0	48	0	25	0	25	0	25	0	0
HFC	Harbor porpoise	Gulf of Maine/ Bay of Fundy	1	36	1	40	0	5	0	30	0	30	0	0
PP	Gray seal	Western North Atlantic	1	83	1	72	0	5	0	29	0	29	0	0
	Harbor seal	Western North Atlantic	1	83	1	72	0	5	0	29	0	29	0	0

*Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.*

a - Although the proposed rule, if promulgated, would have an effective period for five full years (from early 2024 to early 2029), no work is anticipated to occur in 2029 which means no take has been requested or proposed for 2029.

b - While these species were not originally included in Dominion Energy's request, given recorded sightings/detections of these species during previous Dominion Energy IHAs in the same general area, NMFS has included these as species that may be harassed (by Level B harassment only) during the five-year effective period of this proposed rulemaking.

c - Either 2024 Or 2025 represent the maximum amount of take that would be authorized annually, specific to each species and/or stock.

Table 28 – Total 5-Year Takes Of Marine Mammals (By Level A Harassment And Level B Harassment) Proposed to be Authorized For All Activities (2024-2029)

Marine Mammal Hearing Group and Species		Stock	NMFS Stock Abundance	5-Year Totals		
				Proposed Level A Harassment	Proposed Level B Harassment	5-year Total (Level A + Level B)
LFC	North Atlantic right whale*	Western North Atlantic	338[a]	0	17	17
	Fin whale*	Western North Atlantic	6,802	7	208	215
	Humpback whale	Gulf of Maine	1,396	8	242	250
	Minke whale	Canadian East Coast	21,968	15	116	131
	Sei whale*	Nova Scotia	6,292	2	8	10
MFC	Sperm whale*	North Atlantic	4,349	0	6	6
	Pygmy sperm whale[b]	Western North Atlantic	7,750	0	2	2
	Atlantic spotted dolphin	Western North Atlantic	39,921	0	26,764	26,764
	Atlantic white-sided dolphin	Western North Atlantic	93,233	0	111	111
	Bottlenose dolphin	Western North Atlantic - Offshore	62,851	0	7,892	7,892
		Southern Migratory Coastal	6,639	0	450	450
		Southern Migratory Coastal and Western North Atlantic - Offshore	69,490	0	16,620	16,620

	Clymene dolphin[b]	Western North Atlantic	4,237	0	10	10
	Common dolphin	Western North Atlantic	172,974	0	25,860	25,860
	False killer whale[b]	Western North Atlantic	1,791	0	8	8
	Melon-headed whale[b]	Western North Atlantic	n/a	0	10	10
	Pilot whale *spp.*	Western North Atlantic	39,215	0	212	212
	Pantropical spotted dolphin	Western North Atlantic	6,593	0	140	140
	Risso's dolphin	Western North Atlantic	35,215	0	173	173
HFC	Harbor porpoise	Gulf of Maine/Bay of Fundy	95,543	2	141	143
PP	Gray seal	Western North Atlantic	27,300	2	218	220
	Harbor seal	Western North Atlantic	61,336	2	218	220

*Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.*

a - NMFS notes that, even using the maximum estimate presented in the 2021 North Atlantic Right whale Report Card (Pettis et al., 2022; n=350; nmin=336 with 95 percent confidence interval +/- 14), the total percentage of this species that would be taken by Level B harassment only over the five-year period of the proposed rule would be two percent of the overall population of North Atlantic right whales. While NMFS acknowledges the estimate found on the North Atlantic Right Whale Consortium's website (https://www.narwc.org/report-cards.html), we have used the value presented in the draft 2022 SARs (88 FR 4162, January 24, 2023, https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports; nbest=338) as the best available science for this proposed action.

b - While these species were not originally included in Dominion Energy's request, given recorded sightings/detections of these species during previous Dominion Energy IHAs in the same general area, NMFS has included these as species that may be harassed (by Level B harassment only) during the five-year effective period of this proposed rulemaking.

In making the negligible impact determination and the small numbers finding, NMFS assesses the greatest number of proposed take of marine mammals that could occur within any one year, which in the case of this rule is based on the predicted take in either Year 1 (2024) or Year 2 (2025), depending on the species and/or stock. In this calculation, the maximum estimated number of Level A harassment takes in any one year is summed with the maximum estimated number of Level B harassment takes in any one year for each species to yield the highest number of estimated take that could occur in any year. We recognize that certain activities could shift within the 5-year effective period of the rule; however, the rule allows for that flexibility and the takes are not expected to exceed those shown in Table 29 in any one year.

Table 29 – Maximum Number Of Takes (Level A Harassment and Level B Harassment) Proposed to be Authorized That Could Occur In Any One Year Relative To Stock Population Size

Marine Mammal Hearing Group and Species		Stock	NMFS Stock Abundance	Maximum Annual Take Proposed for Authorization[d]			
				Maximum Level A Harassment In Any One Year	Maximum Level B Harassment In Any One Year	Maximum Annual Take (Maximum Level A Harassment + Maximum Level B Harassment In Any One Year)	Total Percent Stock Taken In Any One Year Based on Maximum Annual Take[a]
LFC	North Atlantic Right Whale*	Western North Atlantic	338[b]	0	7	7	2.07
	Fin Whale*	Western North Atlantic	6,802	4	113	117	1.72
	Humpback Whale	Gulf of Maine	1,396	4	130	134	9.60
	Minke Whale	Canadian East Coast	21,968	8	56	64	0.29
	Sei Whale*	Nova Scotia	6,292	1	3	4	0.06
MFC	Sperm Whale*	North Atlantic	4,349	0	3	3	0.07
	Pygmy sperm whale[c]	Western North Atlantic	7,750	0	1	1	0.01
	Atlantic Spotted Dolphin	Western North Atlantic	39,921	0	7,360	7,360	18.44
	Atlantic White-sided Dolphin	Western North Atlantic	93,233	0	36	36	0.04
	Bottlenose Dolphin	Western North Atlantic - Offshore	62,851	0	4,290	4,290	6.83

		Southern Migratory Coastal	6,639	0	450	450	6.78
		Southern Migratory Coastal and Western North Atlantic - Offshore	69,490	0	5,520	5,520	7.94
	Clymene dolphin[c]	Western North Atlantic	4,237	0	5	5	0.12
	Common Dolphin	Western North Atlantic	172,974	0	7,360	7,360	4.25
	False killer whale[c]	Western North Atlantic	1,791	0	4	4	0.22
	Melon-headed whale[c]	Western North Atlantic	n/a	0	5	5	n/a
	Pilot Whale *spp.*	Western North Atlantic	39,215	0	82	82	0.21
	Pantropical Spotted Dolphin	Western North Atlantic	6,593	0	40	40	0.61
	Risso's Dolphin	Western North Atlantic	35,215	0	50	50	0.14
HFC	Harbor Porpoise	Gulf of Maine/Bay of Fundy	95,543	1	40	41	0.04
PP	Gray Seal	Western North Atlantic	27,300	1	83	84	0.31
	Harbor Seal	Western North Atlantic	61,336	1	83	84	0.14

*Note: LFC = low-frequency cetaceans; MFC = mid-frequency cetaceans; HFC = high-frequency cetaceans; PP = phocid pinnipeds; * denotes species listed under the Endangered Species Act.*

a – Calculations of percentage of stock taken are based on the maximum requested Level A harassment take in any one year + the total requested Level B harassment take in any one year and then compared against the best available abundance estimate, as shown in Tables 7 and 29. For this proposed action, the best available abundance estimates are derived from the NMFS SARs (88 FR 4162, January 24, 2023, https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports).

b – NMFS notes that, even using the maximum estimate presented in the 2021 North Atlantic Right whale Report Card (Pettis et al., 2022; n=350; nmin=336 with 95 percent confidence interval +/- 14), the total percentage of this species that would be taken by Level B harassment only over the five-year period of the proposed rule would be two percent of the overall population of North Atlantic right whales. While NMFS acknowledges the estimate found on the North Atlantic Right Whale Consortium's website (https://www.narwc.org/report-cards.html), we have used the value presented in the draft 2022 SARs (88 FR 4162, January 24, 2023, https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports; nbest=338) as the best available science for this proposed action.

c - While these species were not originally included in Dominion Energy's request, given recorded sightings/detections of these species during previous Dominion Energy IHAs in the same general area, NMFS has included these as species that may be harassed (by Level B harassment only) during the five-year effective period of this proposed rulemaking.

d - This value assumes that each instance of take is a different individual, which is not likely the case for all species, as described in the ***Negligible Impact Analysis and Determination*** *section.*

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Proposed Mitigation

In order to promulgate a rulemaking under section 101(a)(5)(A) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to the activity, and other means of effecting the least practicable impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS' regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting the activity or other means of effecting the least practicable adverse impact upon the affected species or stocks and their habitat (50 CFR 216.104(a)(11)).

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, as well as subsistence uses where applicable, we carefully consider two primary factors:

(1) The manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned), the likelihood of effective implementation (probability implemented as planned), and;

(2) The practicability of the measures for applicant implementation, which may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

The mitigation strategies described below are consistent with those required and successfully implemented under previous incidental take authorizations issued in association with in-water construction activities (*e.g.,* soft-start, establishing shutdown zones). Additional measures have also been incorporated to account for the fact that the proposed construction activities would occur offshore. Modeling was performed to estimate harassment zones, which were used to inform mitigation measures for pile driving activities to minimize Level A harassment and Level B harassment to the extent practicable while providing estimates of the areas within which Level B harassment might occur.

Generally speaking, the measures considered and proposed here fall into three categories: temporal (seasonal and daily) work restrictions, real-time measures (shutdown, clearance zones, and vessel strike avoidance), and noise reduction measures. Seasonal work restrictions are designed to avoid or minimize operations when marine mammals are concentrated or engaged in behaviors that make them more susceptible or make impacts more likely. Temporal restrictions are also designed to reduce both the number and severity of potential takes, and are effective in reducing both chronic (longer-term) and acute effects. Real-time measures, such as clearance and shutdown requirements and vessel strike avoidance measures, are intended to reduce the probability or scope of near-term acute impacts by taking steps in real time once a higher-risk scenario is identified (*i.e.,* once animals are detected within an impact zone). Noise reduction measures, such as the use of noise abatement devices like bubble curtains, are intended to reduce the noise at the source, which reduces both acute impacts as well as the contribution to aggregate and cumulative noise that results in longer term chronic impacts.

Below, we describe measures that apply to all activity types, and then in the following subsections, we describe the measures that apply specifically to WTG and OSS foundation installation, cable landfall construction pile driving, HRG surveys, and fishery monitoring surveys.

Although the language contained in this proposed rule directly refers to the applicant, Dominion Energy, all proposed measures discussed herein would also apply to any persons Dominion Energy authorizes or funds to conduct activities on its behalf specific to the CVOW–C project.

Training and Coordination

All relevant personnel and the marine mammal monitoring team(s) would be required to participate in joint, onboard briefings that would be led by CVOW–C project personnel and the Lead PSO prior to the beginning of project activities. This would serve to ensure that all relevant responsibilities, communication procedures, marine mammal monitoring and mitigation protocols, reporting protocols, safety, operational procedures, and ITA requirements are clearly understood by all involved parties. The briefing would be repeated whenever new relevant personnel (*e.g.,* new PSOs, acoustic source operators, relevant crew) join the operation before work commences. During this training, Dominion Energy would be required to instruct all project personnel regarding the authority of the marine mammal monitoring team(s). For example, the HRG acoustic equipment operator, pile driving personnel, *etc.,* would be required to immediately comply with any call for a delay or shutdown by the Lead PSO. Any disagreement between the Lead PSO and the project personnel would only be discussed after delay or shutdown has occurred. More information on vessel crew training requirements can be found in the *Vessel Strike Avoidance Measures* sections below.

Protected Species Observers and PAM Operator Training

Dominion Energy would employ NMFS-approved PSOs and PAM operators. The PSO field team and PAM team would have a lead member (designated as the ''Lead PSO'' or ''PAM Lead'') who would have prior experience observing mysticetes, odontocetes, and pinnipeds in the northwestern Atlantic Ocean on other offshore projects requiring PSOs. Any remaining PSOs and PAM operators must have previous experience observing marine mammals during projects and must have the ability to work with all required and relevant software and equipment. New and/or inexperienced PSOs would be paired with an experienced PSO to ensure that the quality of marine mammal observations and data recording is kept consistent. Additional information on the roles and requirements of the PAM operators (section 4.1.1.2) and PSOs (section 4.1.1.3) can be found in Dominion Energy's supplemental Protected Species Mitigation and Monitoring Plan (PSMMP) on NMFS' website (*https://www.fisheries.noaa.gov/action/incidental-take-authorization-dominion-energy-virginia-construction-coastal-virginia*).

Prior to the start of activities, a briefing would be conducted between the supervisors, the crew, the PSO/PAM team, the environmental compliance monitors, and Dominion Energy personnel. This briefing would be to establish the responsibilities of each participating party, to define the chains of command, to discuss communication procedures, to provide an overview of the monitoring purposes, and to review

the operational procedures. The designated PSO (*i.e.,* Lead PSO) would oversee the training, the environmental compliance monitors, the PSOs, and other tasks specifically related to monitoring. More information on the specific roles and requirements of the Lead PSO can be found in section 4.1.1.1 of Dominion Energy's PSMMP.

North Atlantic Right Whale Awareness Monitoring

Dominion Energy must use available sources of information on North Atlantic right whale presence, including daily monitoring of the Right Whale Sightings Advisory System, monitoring of Coast Guard VHF Channel 16 throughout each day to receive notifications of any sightings, and information associated with any regulatory management actions (*e.g.,* establishment of a zone identifying the need to reduce vessel speeds). Maintaining daily awareness and coordination affords increased protection of North Atlantic right whales by understanding North Atlantic right whale presence in the area through ongoing visual and passive acoustic monitoring efforts and opportunities (outside of Dominion Energy's efforts) and allows for planning of construction activities, when practicable, to minimize potential impacts on North Atlantic right whales.

Given the CVOW–C project is occurring within the general vicinity of the North Atlantic right whale SMA located outside of the mouth of the Chesapeake Bay, all vessels would be required to comply with the Mid-Atlantic Seasonal Management Area (SMA) mandatory speed restriction period (November 1st through April 30th) for all activities. Dominion Energy would also be required to monitor the NOAA Fisheries North Atlantic Right Whale reporting system for the establishment of a Dynamic Management Area (DMA).

Vessel Strike Avoidance Measures

This proposed rule contains numerous vessel strike avoidance measures. Dominion Energy will be required to comply with these measures except under circumstances when doing so would create an imminent and serious threat to a person or vessel or to the extent that a vessel is unable to maneuver and because of the inability to maneuver, the vessel cannot comply (*e.g.,* due to towing, *etc.*). Vessel operators and crews will receive protected species identification training prior to the start of in-water construction activities. This training will cover information about marine mammals and other protected species known to occur or which have the potential to occur in the project area. It will include training on making observations in both good weather conditions (*i.e.,* clear visibility, low wind, and low sea state) and bad weather conditions (*i.e.,* fog, high winds and high sea states, in glare). Training will not only include identification skills but will also include information and resources available regarding applicable Federal laws and regulations for protected species. In addition, all vessels must be equipped with an Automatic Identification System (AIS) and Dominion Energy must report all Maritime Mobile Service Identify (MMSI) numbers to NMFS Office of Protected Resources prior to initiating in-water activities.

Dominion Energy will abide by the following vessel strike avoidance measures:

- All vessel operators and crews must maintain a vigilant watch for all marine mammals and slow down, stop their vessel, or alter course (as appropriate) to avoid striking any marine mammal.
- During any vessel transits within or to/from the CVOW–C project area, such as for crew transfers, an observer would be stationed at the best vantage point of the vessel(s) to ensure that the vessel(s) are maintaining the appropriate separation distance from marine mammals.
- Year-round and when a vessel is in transit, all vessel operators will continuously monitor U.S. Coast Guard VHF Channel 16 over which North Atlantic right whale sightings are broadcasted.
- At the onset of transiting and at least once every four hours, vessel operators and/or trained crew members will monitor the project's Situational Awareness System, WhaleAlert, and the Right Whale Sighting Advisory System (RWSAS) for the presence of North Atlantic right whales.
- Any observations of any large whale by any Dominion Energy staff or contractors, including vessel crew, must be communicated immediately to PSOs, PAM operator, and all vessel captains to increase situational awareness. Conversely, any large whale observation or detection via a sighting network (*e.g.,* Mysticetus) by PSOs or PAM operators will be conveyed to vessel operators and crew.
- All vessels would comply with existing NMFS regulations and speed restrictions and state regulations, as applicable, for North Atlantic right whales.
- In the event that any Slow Zone (DMA or acoustically triggered slow zone) is established that overlaps with an area where a project-associated vessel would operate, that vessel, regardless of size, will transit that area at 10 kts or less.
- Between November 1st and April 30th, all vessels, regardless of size, would operate at 10 kts or less.
- All vessels, regardless of size, would immediately reduce speed to 10 kts or less when any large whale, whale mother/calf pairs, or large assemblages of non-delphinid cetaceans are observed near (within 100 m) an underway vessel.
- All vessels, regardless of size, would immediately reduce speed to 10 kts or less when a North Atlantic right whale is sighted, at any distance, by an observer or anyone else on the vessel.
- All transiting vessels (*e.g.,* transiting, surveying) must have a dedicated visual observer on duty at all times to monitor for marine mammals within a 180° direction of the forward path of the vessel (90° port to 90° starboard). Visual observers must be equipped with alternative monitoring technology for periods of low visibility (*e.g.,* darkness, rain, fog, *etc.*). The dedicated visual observer must receive prior training on protected species detection and identification, vessel strike minimization procedures, how and when to communicate with the vessel captain, and reporting requirements in this proposed action. Visual observers may be third-party observers (*i.e.,* NMFS-approved PSOs) or crew members and must not have any other duties other than observing for marine mammals. Observer training related to these vessel strike avoidance measures must be conducted for all vessel operators and crew prior to the start of in-water construction activities to distinguish marine mammals from other phenomena and broadly to identify a marine mammal as a North Atlantic right whale, other whale (defined in this context as sperm whales or baleen whales other than North Atlantic right whales), or other marine mammal. Confirmation of the observers' training and understanding of the ITA requirements must be documented on a training course log sheet and reported to NMFS.
- All vessels must maintain a minimum separation distance of 500 m from North Atlantic right whales. If a whale is observed but cannot be confirmed as a species other than a North Atlantic right whale, the vessel operator must assume that it is a North Atlantic right whale and take appropriate action.
- All transiting vessels must steer a course away from any sighted North

Atlantic right whale at 10 kts or less such that the 500-m minimum separation distance requirement is not violated. If a North Atlantic right whale or a large whale that cannot be confirmed as a species other than a North Atlantic right whale is sighted within 500 m of an underway vessel, that vessel must shift the engine to neutral. Engines will not be engaged until the whale has moved outside of the vessel's path and beyond 500 m. If a whale is observed but cannot be confirmed as a species other than a North Atlantic right whale, the vessel operator must assume that it is a North Atlantic right whale and take appropriate action.

- All vessels must maintain a minimum separation distance of 100 m from sperm whales and non-North Atlantic right whale baleen whales. If one of these species is sighted within 100 m of a transiting vessel, that vessel must shift the engine to neutral. Engines will not be engaged until the whale has moved outside of the vessel's path and beyond 100 m.
- All vessels must, to the maximum extent practicable, attempt to maintain a minimum separation distance of 50 m from all delphinid cetaceans and pinnipeds with an exception made for those that approach the vessel (*e.g.,* bow-riding dolphins). If a delphinid cetacean or pinniped is sighted within 50 m of an underway vessel, that vessel must shift the engine to neutral (again, with an exception made for those that approach the vessel). Engines will not be engaged until the animal(s) has moved outside of the vessel's path and beyond 50 m.
- When a marine mammal(s) is sighted while a vessel is transiting, the vessel must take action as necessary to maintain the relevant separation distances (*e.g.,* attempt to remain parallel to the animal's course, avoid excessive speed or abrupt changes in direction until the animal has left the area). If a marine mammal(s) is sighted within the relevant separation distance, the vessel must reduce speed and shift the engine to neutral, not engaging the engine(s) until the animal(s) is clear of the area. This does not apply to any vessel towing gear or any situation where respecting the relevant separation distance would be unsafe (*i.e.,* any situation where the vessel is navigationally constrained).
- All transiting vessels must not divert or alter course in order to approach any marine mammal.
- For in-water construction heavy machinery activities, other than impact or vibratory pile driving, if a marine mammal is on a path towards or comes within 10 m of equipment, Dominion Energy must cease operations until the marine mammal has moved more than 10 m on a path away from the activity to avoid direct interaction with equipment.
- Dominion Energy must submit a North Atlantic right whale vessel strike avoidance plan 180 days prior to commencement of vessel use. The plan would, at minimum, describe how PAM, in combination with visual observations, would be conducted to ensure the transit corridor is clear of right whales. The plan would also provide details on the vessel-based observer protocols on transiting vessels.

WTG and OSS Foundation Installation

For WTG and OSS foundation installation, NMFS is proposing to include the following mitigation requirements, which are described in detail below: seasonal and daily restrictions; the use of noise abatement systems; the use of PSOs and PAM operators; the implementation of clearance and shutdown zones, and the use of soft-start.

Seasonal and Daily Restrictions

No foundation pile driving activities (inclusive of both vibratory and impact pile driving) would occur between November 1st through April 30th of any year. Based on the best scientific information available (*i.e.,* Roberts and Halpin, 2022), the highest densities of North Atlantic right whales in the project area are expected during the months of November through April. NMFS is proposing to require this seasonal work restriction to minimize the exposure of North Atlantic right whales to noise incidental to both vibratory and impact pile driving of monopiles (for the WTGs) and jacket pin piles (for the OSSs), which is expected to greatly reduce the number of takes of North Atlantic right whales.

No more than two foundation monopiles would be installed per day. Monopiles would be no larger than 9.5-m in diameter, representing the larger end of the tapered 9.5/7.5-m monopile design. For all monopiles, the minimum amount of hammer energy necessary to effectively and safely install and maintain the integrity of the piles must be used. These hammer energies must not exceed 4,000 kJ. Similarly, no more than two foundation pin piles would be installed per day. Pin piles for jacket foundations would be no larger than 2.8-m in diameter. A jacket foundation design no larger than a four-legged design must be used (four pin piles per jacket foundation). For all pin piles, the minimum amount of hammer energy necessary to effectively and safely install and maintain the integrity of the piles must be used. These hammer energies must not exceed 3,000 kJ.

Dominion Energy would initiate pile driving (inclusive of both vibratory and impact) no earlier than one hour after civil sunrise or no later than 1.5 hours before civil sunset. Dominion Energy has not proposed nighttime pile driving other than if pile driving continues after dark. This would only occur when installation of the same pile begins during daylight (*i.e.,* 1.5 hours before civil sunset). Dominion Energy would need to adequately monitor all relevant zones to ensure the most effective mitigative actions are being undertaken. Additional restrictions are discussed in the following Clearance and Shutdown Zones section.

Noise Abatement Systems

Dominion Energy would employ noise abatement systems (NAS), also known as noise attenuation systems, during all vibratory and impact pile driving of monopiles and pin piles to reduce the sound pressure levels that are transmitted through the water in an effort to reduce ranges to acoustic thresholds and minimize any acoustic impacts resulting from pile driving. Dominion Energy would be required to employ a big double bubble curtain (as was used during the CVOW Pilot Project), other technology capable of achieving a 10-dB sound level reduction, or a combination of two or more NAS capable of achieving a 10-dB sound level reduction during these activities as well as the adjustment of operational protocols to minimize noise levels.

Two categories of NAS exist: primary and secondary. A primary NAS would be used to reduce the level of noise produced by the pile driving activities at the source, typically through adjustments on to the equipment (*e.g.,* hammer strike parameters). Primary NAS are still evolving and will be considered for use during mitigation efforts when the NAS has been demonstrated as effective in commercial projects. However, as primary NAS are not fully effective at eliminating noise, a secondary NAS would be employed. The secondary NAS is a device or group of devices that would reduce noise as it was transmitted through the water away from the pile, typically through a physical barrier that would reflect or absorb sound waves and therefore, reduce the distance the higher energy sound propagates through the water column. Together, these systems must reduce noise levels to the lowest level practicable with the goal of not

exceeding measured ranges to Level A harassment and Level B harassment isopleths corresponding to those modeled assuming 10-dB sound attenuation, pending results of Sound Field Verification (SFV; see the *Acoustic Monitoring for Sound Field and Harassment Isopleth Verification* section).

Noise abatement systems, such as bubble curtains, are used to decrease the sound levels radiated from a source. Bubbles create a local impedance change that acts as a barrier to sound transmission. The size of the bubbles determines their effective frequency band, with larger bubbles needed for lower frequencies. There are a variety of bubble curtain systems, confined or unconfined bubbles, and some with encapsulated bubbles or panels. Attenuation levels also vary by type of system, frequency band, and location. Small bubble curtains have been measured to reduce sound levels but effective attenuation is highly dependent on depth of water, current, and configuration and operation of the curtain (Austin *et al.,* 2016; Koschinski and Lüdemann, 2013). Bubble curtains vary in terms of the sizes of the bubbles and those with larger bubbles tend to perform a bit better and more reliably, particularly when deployed with two separate rings (Bellmann, 2014; Koschinski and Lüdemann, 2013; Nehls *et al.,* 2016). Encapsulated bubble systems (*e.g.,* Hydro Sound Dampers (HSDs)), can be effective within their targeted frequency ranges (*e.g.,* 100–800 Hz), and when used in conjunction with a bubble curtain appear to create the greatest attenuation. The literature presents a wide array of observed attenuation results for bubble curtains. The variability in attenuation levels is the result of variation in design as well as differences in site conditions and difficulty in properly installing and operating in-water attenuation devices. Secondary NAS that may be used by Dominion Energy include a big bubble curtain (BBC), a hydro-sound damper, or an AdBm Helmholz resonator (Elzinga *et al.,* 2019). If a single system is used, it must be a double big bubble curtain (dBBC). Other dual systems (*e.g.,* noise mitigation screens, hydro-sound damper, AdBm Helmholz resonator) are being considered for the CVOW–C project, although many of these are in their early stages of development and field tests to evaluate performance and effectiveness have not been completed. Should the research and development phase of these newer systems demonstrate effectiveness, as part of adaptive management, Dominion Energy may submit data on the effectiveness of these systems and request approval from NMFS to use them during vibratory and impact pile driving.

The literature presents a wide array of observed attenuation results for bubble curtains. The variability in attenuation levels is the result of variation in design as well as differences in site conditions and difficulty in properly installing and operating in-water attenuation devices. Dähne *et al.* (2017) found that single bubble curtains that reduce sound levels by 7 to 10 dB reduced the overall sound level by approximately 12 dB when combined as a double bubble curtain for 6-m steel monopiles in the North Sea. During installation of monopiles (consisting of approximately 8-m in diameter) for more than 150 WTGs in comparable water depths (>25 m) and conditions in Europe indicate that attenuation of 10 dB is readily achieved (Bellmann, 2019; Bellmann *et al.,* 2020) using single BBCs for noise attenuation. Designed to gather additional data regarding the efficacy of BBCs, the CVOW Pilot Project systematically measured noise resulting from the impact driven installation of two 7.8-m diameter monopiles, one installation using a dBBC and the other installation using no noise abatement system (CVOW, unpublished data). Although many factors contributed to variability in received levels throughout the installation of the piles (*e.g.,* hammer energy, technical challenges during operation of the dBBC), reduction in broadband SEL using the dBBC (comparing measurements derived from the mitigated and the unmitigated monopiles) ranged from approximately 9–15 dB.

If a bubble curtain is used (single or double), Dominion Energy would be required to maintain the following operational parameters: the bubble curtain(s) must distribute air bubbles using a target air flow rate of at least 0.5 $m^3/(min*m)$ and must distribute bubbles around 100 percent of the piling perimeter for the full depth of the water column. The lowest bubble ring must be in contact with the seafloor for the full circumference of the ring, and the weights attached to the bottom ring must ensure 100-percent seafloor contact; no parts of the ring or other objects should prevent full seafloor contact. Dominion Energy must require that construction contractors train personnel in the proper balancing of airflow to the bubble ring and must require that construction contractors submit an inspection/performance report for approval by Dominion Energy within 72 hours following the performance test. Corrections to the attenuation device to meet the performance standards must occur prior to impact driving of monopiles. If Dominion Energy uses a noise mitigation device in addition to a BBC, similar quality control measures would be required.

Again, NMFS would require Dominion Energy to apply a dBBC or a single BBC coupled with an additional noise mitigation device to ensure sound generated from the project does not exceed that modeled (assuming 10-dB reduction) at given ranges to harassment isopleths and to minimize noise levels to the lowest level practicable. Double BBCs are successfully and widely applied across European wind development efforts and are known to reduce noise levels more than single BBC alone (*e.g.,* Bellman *et al.,* 2020). Dominion Energy anticipates and NMFS agrees that the use of a noise abatement system would likely produce field measurements of the isopleth distances to the Level A harassment and Level B harassment thresholds that accord with those modeled assuming 10-dB of attenuation for vibratory and impact pile driving of monopiles and pin piles (refer back to the Estimated Take, Proposed Mitigation, and Proposed Monitoring and Reporting sections).

Use of PSOs and PAM Operators

As described above, Dominion Energy would be required to use PSOs and acoustic PSOs (*i.e.,* PAM operators) during all WTG and OSS foundation installation activities. Dominion Energy would be required to utilize a team of sufficient size to allow for appropriate implementation of mitigation measures and monitoring. At a minimum, four PSOs would be actively observing marine mammals before, during, and after pile driving. At least two PSOs would be stationed on the primary pile driving installation vessel and at least two PSOs would be stationed on a secondary, dedicated PSO vessel. The dedicated PSO vessel would be positioned approximately 3 km from the pile being driven and circle the pile at a speed of less than 10 kts. Concurrently, at least one PAM operator would be actively monitoring for marine mammals before, during, and after pile driving. PSOs fulfilling the role of both the PAM operator and PSO may be utilized interchangeably, if all relevant experience and educational requirements are met; however, PAM operators/PSOs must only serve in one capacity per watch period. During all monopile installation and in the two days prior to and daily throughout the construction, the Lead PSO would continue to consult the NOAA Fisheries

North Atlantic right whale reporting systems for the presence of North Atlantic right whales. More details on PSO and PAM operator requirements can be found in the Proposed Monitoring and Reporting section.

As a requirement that is not only exclusive to PAM operators and PSOs, all crew and personnel working on the CVOW–C project would be required to maintain situational awareness of marine mammal presence (discussed further above) and would be required to report any sightings to the PSOs for implementation of mitigation measures, if necessary.

Clearance and Shutdown Zones

NMFS is proposing to require the establishment of both clearance and shutdown zones during all impact and vibratory pile driving of monopiles and pin piles, which would be monitored by visual PSOs and PAM operators before, during and after pile driving. PSOs must visually monitor clearance zones for marine mammals for a minimum of 60 minutes immediately prior to commencing pile driving. At least one PAM operator must review data from at least 24 hours prior to pile driving and actively monitor hydrophones for 60 minutes immediately prior to pile driving. Prior to initiating soft-start procedures, all clearance zones must be visually confirmed to be free of marine mammals for 30 minutes immediately prior to starting a soft-start of pile driving. If a marine mammal is observed entering or within the relevant clearance zone prior to the initiation of impact pile driving activities, pile driving must be delayed and will not begin until either the marine mammal(s) has voluntarily left the specific clearance zones and have been visually or acoustically confirmed beyond that clearance zone or when specific time periods have elapsed with no further sightings or acoustic detections have occurred (*i.e.,* 15 minutes for small odontocetes and 30 minutes for all other marine mammal species).

The purpose of ''clearance'' of a particular zone is to prevent or minimize potential instances of auditory injury and more severe behavioral disturbances by delaying the commencement of impact pile driving if marine mammals are near the activity. Prior to the start of impact pile driving activities, Dominion Energy would ensure the area is clear of marine mammals, per the clearance zones presented in Tables 30 and 31, to minimize the potential for and degree of harassment. Once pile driving activity begins, any marine mammal entering the shutdown zone would trigger pile driving to cease (unless shutdown is not practicable due to imminent risk of injury or loss of life to an individual or risk of damage to a vessel that creates risk of injury or loss of life for individuals). The purpose of a shutdown is to prevent a specific acute impact, such as auditory injury or severe behavioral disturbance of sensitive species, by halting the activity.

In addition to the clearance and shutdown zones that would be monitored both visually and acoustically, NMFS is proposing to establish a minimum visibility zone to ensure both visual and acoustic methods are used in tandem to detect marine mammals resulting in maximum detection capability. The minimum visibility zone that has been proposed by Dominion Energy would extend 1,750 m from the pile being driven during all months in which foundation installation is planned to occur. This value was proposed by Dominion Energy as it corresponds to the Exclusion Zone implemented during the CVOW Pilot Project (see 85 FR 30930, May 21, 2020). While NMFS acknowledges that this distance was adequate and appropriate for the CVOW Pilot Project, the turbine models for the proposed CVOW–C project are much larger (7.8-m versus 9.5-m, respectively) and would require a much larger maximum hammer energy (1,000 kJ maximum versus 4,000 kJ maximum). These factors create a larger distance to the Level A harassment threshold than the CVOW Pilot Project. Because of these reasons, NMFS has instead proposed a minimum visibility distance for WTG monopile and OSS pin pile installation as 2,000 m.

During all foundation installation, Dominion Energy must ensure that the entire minimum visibility zone (as based on the installation activity occurring) is visible (*i.e.,* not obscured by dark, rain, fog, *etc.*) for a full 30 minutes immediately prior to commencing vibratory or impact pile driving. In addition, the entire clearance zone must be visually clear of marine mammals prior to commencing vibratory or impact pile driving. For North Atlantic right whales, there is an additional requirement that the clearance zone may only be declared clear if no confirmed North Atlantic right whale acoustic detections (in addition to visual) have occurred during the 60-minute monitoring period. Any large whale sighted by a PSO or acoustically detected by a PAM operator that cannot be identified as a non-North Atlantic right whale must be treated as if it were a North Atlantic right whale.

Proposed clearance and shutdown zones have been developed in consideration of modeled distances to relevant PTS thresholds with respect to minimizing the potential for take by Level A harassment. All proposed clearance and shutdown zones for large whales are larger than the largest modeled acoustic range ($R_{95\%}$) distances to thresholds corresponding to Level A harassment (SEL and peak).

If a marine mammal is observed entering or within the respective shutdown zone (Tables 30 and 31) after pile driving has begun, the PSO will request a temporary cessation of pile driving. Dominion Energy will stop pile driving immediately unless Dominion Energy determines shutdown is not practicable due to imminent risk of injury or loss of life to an individual or risk of damage to a vessel that creates risk of injury or loss of life for individuals or the lead engineer determines there is pile refusal or pile instability. Pile refusal occurs when the pile driving sensors indicate the pile is approaching refusal, and a shut-down would lead to a stuck pile which then poses an imminent risk of injury or loss of life. Pile instability occurs when the pile is unstable and unable to stay standing if the piling vessel were to ''let go.'' During these periods of instability, the lead engineer may determine a shutdown is not feasible because the shutdown combined with impending weather conditions may require the piling vessel to ''let go'', which then poses an imminent risk of injury or loss of life, pile refusal, or pile instability. In any of these situations, Dominion Energy must reduce hammer energy to the lowest level practicable and the reason(s) for not shutting down must be documented and reported to NMFS.

The lead engineer must evaluate the following to determine if a shutdown is safe and practicable:

a. Use of site-specific soil data and real-time hammer log information to judge whether a stoppage would risk causing piling refusal at re-start of piling;

b. Confirmation that pile penetration is deep enough to secure pile stability in the interim situation, taking into account weather statistics for the relevant season and the current weather forecast; and

c. Determination by the lead engineer on duty will be made for each pile as the installation progresses and not for the site as a whole.

If it is determined that shutdown is not feasible, the reason must be documented and reported (see Proposed Monitoring and Reporting section).

Subsequent restart of the equipment can be initiated if the animal has been observed exiting its respective shutdown zone within 30 minutes of the shutdown, or, after an additional time period has elapsed with no further sighting (*i.e.,* 15 minutes for small odontocetes and pinnipeds and 30 minutes for all other species).

The clearance and shutdown zone sizes vary by species and are shown in Tables 30 and 31. All distances to the perimeter of these mitigation zones are the radii from the center of the pile. Pursuant to the proposed adaptive management provisions, Dominion Energy may request modification to these zone sizes pending results of sound field verification (see Proposed Monitoring and Reporting section). Any changes to zone size would require NMFS' prior approval.

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Table 30 – Mitigation Zone Distances To The Level A Harassment And Level B Harassment Thresholds During Vibratory And Impact Pile Driving Of WTG Monopile Foundations, Assuming The Maximum Daily Build-Out (Two Piles Installed Per Day) And Deep Water Conditions (Inclusive Of 10 dB Of Sound Attenuation)

Marine Mammals	WTG Monopile Foundations[a, b]							
	Impact Pile Driving Installation				Vibratory Pile Driving Installation			
	Clearance Zone (m)		Shutdown Zone (m)		Clearance Zone (m)		Shutdown Zone (m)	
	One Pile Per Day	Two Piles Per Day	One Pile Per Day	Two Piles Per Day	One Pile Per Day	Two Piles Per Day	One Pile Per Day	Two Piles Per Day
North Atlantic right whale - PAM detection	Any distance				Any distance			
North Atlantic right whale - visual detection	Any distance				Any distance			
All other Mysticetes and sperm whales	5,100	6,500	1,750	1,750	1,000	1,000	1,000	1,000
Dolphins and Pilot whales	500	500	500	500	250	250	250	250
Harbor porpoises	750	750	750	750	500	500	500	500
Seals	500	500	500	500	250	250	250	250

a - The minimum visibility zone, an area in which marine mammals must be able to be visually detected, extends 2.0 km.
b - Dominion Energy may request modification of these zones based on the results of sound field verification.

Table 31 – Mitigation Zone Distances To The Level A Harassment And Level B Harassment Thresholds During Vibratory And Impact Pile Driving Of OSS Jacket Foundations, Assuming The Maximum Daily Build-Out (Two Pin Piles Installed Per Day; Inclusive Of 10 dB Of Sound Attenuation)

Marine Mammals	OSS Jacket Foundations[a, b]							
	Impact Pile Driving Installation				Vibratory Pile Driving Installation			
	Clearance Zone (m)		Shutdown Zone (m)		Clearance Zone (m)		Shutdown Zone (m)	
	One Pile Per Day	Two Piles Per Day	One Pile Per Day	Two Piles Per Day	One Pile Per Day	Two Piles Per Day	One Pile Per Day	Two Piles Per Day
North Atlantic right whale - PAM detection	Any distance				Any distance			
North Atlantic right whale - visual detection	Any distance				Any distance			
All other Mysticetes and sperm whales	5,100	6,500	1,750	1,750	1,000	1,000	1,000	1,000
Dolphins and Pilot whales	500	500	500	500	250	250	250	250
Harbor porpoises	750	750	750	750	500	500	500	500
Seals	500	500	500	500	250	250	250	250

a - The minimum visibility zone, an area in which marine mammals must be able to be visually detected, extends 2.0 km.
b - Dominion Energy may request modification of these zones based on the results of sound field verification.

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Soft-Start

The use of a soft-start procedure is believed to provide additional protection to marine mammals by warning them or providing them with a chance to leave the area prior to the hammer operating at full capacity. Soft-start typically involves initiating hammer operation at a reduced energy level (relative to full operating capacity) followed by a waiting period. Dominion Energy must utilize a soft-start protocol for impact pile driving of monopiles by performing 4–6 strikes per minute at 10 to 20 percent of the maximum hammer energy for a minimum of 30 minutes.

Soft-start will be required at the beginning of each day's monopile and pin pile installation and at any time following a cessation of vibratory or impact pile driving of 30 minutes or longer. If a marine mammal is detected within or about to enter the applicable clearance zones prior to the beginning of soft-start procedures, impact pile driving would be delayed until the animal has been visually observed exiting the clearance zone or until a specific time period has elapsed with no further sightings (*i.e.,* 15 minutes for small odontocetes and 30 minutes for all other species).

Cable Landfall Activities—Temporary Cofferdams

For the installation and removal of temporary cofferdams, NMFS is proposing to include the following mitigation requirements, which are described in detail below: daily restrictions; the use of PSOs; and the implementation of clearance and shutdown zones. Given the short duration of work and lower noise levels during vibratory driving, NMFS is not proposing to require PAM or noise abatement system use during these activities.

Seasonal and Daily Restrictions

Dominion Energy has proposed to install and remove all sheet piles associated with temporary cofferdams within the first year of the effective period of the regulations and LOA and has proposed to only perform these activities within the same seasonal work window as previously specified for foundation installation (*i.e.,* May 1st through October 31st). Dominion Energy also proposes to conduct pile driving associated with cable landfall construction during daylight hours. NMFS has carried forward these measures in this proposed rule.

Use of PSOs

Prior to the start of vibratory pile driving activities, at least two PSOs located at the best vantage points would monitor the clearance zone for 30 minutes, continue monitoring during vibratory pile driving, and for 30 minutes following cessation of the activity. The clearance zones must be fully visible for at least 30 minutes and all marine mammal(s) must be confirmed to be outside of the clearance zone for at least 30 minutes immediately prior to initiation of the activity.

Clearance and Shutdown Zones

Dominion Energy would establish clearance and shutdown zones for vibratory pile driving activities associated with sheet pile installation (Table 32). If a marine mammal is observed entering or is observed within the respective zones, activities will not commence until the animal has exited the zone or a specific amount of time has elapsed since the last sighting (*i.e.,* 30 minutes for large whales and 15 minutes for odontocetes and pinnipeds). If a marine mammal is observed entering or within the respective shutdown zone after vibratory pile driving has begun, the PSO will call for a temporary cessation of the activity. Pile driving must not be restarted until either the marine mammal(s) has voluntarily left the specific clearance zones and has been visually confirmed beyond that clearance zone or when specific time periods have elapsed with no further sightings or acoustic detections have occurred (*i.e.,* 15 minutes for small odontocetes and 30 minutes for all other marine mammal species). Because a vibratory hammer can grip a pile without operating, pile instability should not be a concern and no caveat for not ceasing pile driving due to pile instability would be allowed. However, the lead engineer may determine that pile driving cannot cease due to risk to human safety or equipment damage.

The clearance and shutdown zone sizes vary by species and are shown in Table 32. All distances to the perimeter of these mitigation zones are the radii from the center of the pile. Dominion Energy is not proposing, and NMFS is not requiring, sound field verification, hence these distances would not change.

TABLE 32—DISTANCES TO MITIGATION ZONES DURING NEARSHORE CABLE LANDFALL ACTIVITIES

[Temporary Cofferdams]

Marine mammals	Installation and removal of temporary cofferdams	
	Clearance zone (m)	Shutdown zone (m)
North Atlantic right whale—visual detection	Any distance	
All other Mysticetes and sperm whales	1,000	1,000
Delphinids	250	100
Pilot whales	1,000	1,000
Harbor porpoises	250	100
Seals	250	100

Cable Landfall Activities—Temporary Goal Posts

For the installation of temporary goal posts, NMFS is proposing to include the following mitigation requirements, which are described in detail below: daily restrictions; the use of PSOs; the implementation of clearance and shutdown zones; and the use of soft-start. Given the short duration of work and relatively small harassment zones, NMFS is not proposing to require PAM or noise abatement system use during these activities.

Seasonal and Daily Restrictions

Dominion Energy has proposed to install all pile pipes associated with temporary goal posts within the first year of the effective period of the regulations and LOA and has proposed to only perform these activities within the same seasonal work window as

previously specified for foundation installation (*i.e.,* May 1st through October 31st). Similar to cofferdam work, Dominion Energy is not proposing to conduct goal post installation during daylight hours. Because removal of goal posts would be conducted via means that do not produce noise (see the Description of the Specified Activities section), removal could occur during darkness.

Use of PSOs

Prior to the start of impact hammering activities, at least two PSOs located at the best vantage points would monitor the clearance zone for 30 minutes, continue monitoring during impact pile driving, and for 30 minutes following cessation of the activity. The clearance zones must be fully visible for at least 30 minutes and all marine mammal(s) must be confirmed to be outside of the clearance zone for at least 30 minutes immediately prior to initiation of the activity.

Clearance and Shutdown Zones

Dominion Energy would establish clearance and shutdown zones for impact pile driving for casing pipe installation (Table 33). If a marine mammal is observed entering or is observed within the respective zones, activities will not commence until the animal has exited the zone or a specific amount of time has elapsed since the last sighting (*i.e.,* 30 minutes for large whales and 15 minutes for dolphins, porpoises, and pinnipeds). If a marine mammal is observed entering or within the respective shutdown zone after impact pile driving has begun, the PSO will call for a temporary cessation of the activity. Pile driving must not be restarted until either the marine mammal(s) has voluntarily left the specific clearance zones and has been visually confirmed beyond that clearance zone or when specific time periods have elapsed with no further sightings or acoustic detections have occurred (*i.e.,* 15 minutes for small odontocetes and 30 minutes for all other marine mammal species).

The clearance and shutdown zone sizes vary by species and are shown in Table 33. All distances to the perimeter of these mitigation zones are the radii from the center of the pile. Dominion Energy is not proposing, and NMFS is not requiring, sound field verification, hence these distances would not change.

TABLE 33—DISTANCES TO MITIGATION ZONES DURING NEARSHORE CABLE LANDFALL ACTIVITIES

[Temporary Goal Posts]

Marine mammals	Installation of temporary goal posts	
	Clearance zone (m)	Shutdown zone (m)
North Atlantic right whale—visual detection	Any distance	
All other Mysticetes and sperm whales	1,000	1,000
Delphinids	250	100
Pilot whales	1,000	1,000
Harbor porpoises	750	100
Seals	500	100

Soft-Start

Dominion Energy did not provide specific details in either their ITA application or their PSMMP as to the soft-start plan that would be implemented for piles associated with temporary goal posts, however, NMFS proposes the following approach below, which is similar to the soft-start requirements proposed for WTG and OSS foundation installation via impact pile driving.

Dominion Energy must utilize a soft-start protocol for impact pile driving of goal post pipe piles. Soft start requires contractors to provide an initial set of three strikes at reduced energy, followed by a 30-second waiting period, then two subsequent reduced-energy strike sets. Soft-start will be required at the beginning of the installation procedure for each goal post pipe pile and at any time following a cessation of impact pile driving of 30 minutes or longer. If a marine mammal is detected within or about to enter the applicable clearance zones prior to the beginning of soft-start procedures, impact pile driving would be delayed until the animal has been visually observed exiting the clearance zone or until a specific time period has elapsed with no further sightings (*i.e.,* 15 minutes for small odontocetes and 30 minutes for all other species).

HRG Surveys

For HRG surveys, NMFS is proposing to include the following mitigation requirements, which are described in detail below, for all HRG survey activities using boomers, sparkers, and CHIRPs: the use of PSOs; the implementation of clearance, shutdown, and vessel separation zones; and ramp-up of survey equipment.

There are no mitigation measures prescribed for sound sources operating at frequencies greater than 180 kHz as these would be expected to fall outside of marine mammal hearing ranges and not result in harassment; however, all HRG survey vessels would be subject to the aforementioned vessel strike avoidance measures described earlier in this section. Furthermore, due to the frequency range and characteristics of some of the sound sources, take is not anticipated for non-impulsive sources (*e.g.,* Ultra-Short BaseLine (USBL) and other parametric sub-bottom profilers) with exception to usage of CHIRPS and other non-parametric sub-bottom profilers. Hence, mitigation measures are only prescribed for CHIRPS, boomers and sparkers.

PAM would not be required during HRG surveys. While NMFS agrees that PAM can be an important tool for augmenting detection capabilities in certain circumstances, its utility in further reducing impacts during HRG survey activities is limited. We have provided a thorough description of our reasoning for not requiring PAM during previous HRG surveys in several **Federal Register** notices (*e.g.,* 87 FR 40796, July 8, 2022; 87 FR 52913, August 3, 2022; 87 FR 51356, August 22, 2022).

Seasonal and Daily Restrictions

Given the potential impacts to marine mammals from exposure to HRG survey noise sources are relatively minor (*e.g.,* limited to Level B harassment) and that the distances to the Level B harassment isopleth are very small (maximum

distance is 100 m via the GeoMarine Dual 400 Sparker at 800 J), NMFS is not proposing to implement any seasonal or time-of-day restrictions for HRG surveys.

Although no temporal restrictions are proposed, NMFS would require Dominion Energy to deactivate acoustic sources during periods where no data is being collected except as determined necessary for testing. Any unnecessary use of the acoustic source would be avoided.

Use of PSOs

During all HRG survey activities using boomers, sparkers, and CHIRPS, one PSO would be required to monitor during daylight hours and two would be required to monitor during nighttime hours per vessel. PSOs would begin visually monitoring 30 minutes prior to the initiation of the specified acoustic source (*i.e.,* ramp-up, if applicable) through 30 minutes after the use of the specified acoustic source has ceased. PSOs would be required to monitor the appropriate clearance and shutdown zones. These zones would be based around the radial distance from the acoustic source and not from the vessel.

Clearance, Shutdown, and Vessel Separation Zones

Dominion Energy would be required to implement a 30-minute clearance period of the clearance zones (Table 34) immediately prior to the commencing of the survey or when there is more than a 30-minute break in survey activities and PSOs have not been actively monitoring. The clearance zones would be monitored by PSOs using the appropriate visual technology. If a marine mammal is observed within a clearance zone during the clearance period, ramp-up (described below) may not begin until the animal(s) has been observed voluntarily exiting its respective clearance zone or until an additional time period has elapsed with no further sighting (*i.e.,* 15 minutes for small odontocetes and seals, and 30 minutes for all other species). In any case when the clearance process has begun in conditions with good visibility, including via the use of night vision equipment (IR/thermal camera), and the Lead PSO has determined that the clearance zones are clear of marine mammals, survey operations would be allowed to commence (*i.e.,* no delay is required) despite periods of inclement weather and/or loss of daylight.

Once the survey has commenced, Dominion Energy would be required to shut down boomers, sparkers, and CHIRPs if a marine mammal enters a respective shutdown zone (Table 34). In cases when the shutdown zones become obscured for brief periods due to inclement weather, survey operations would be allowed to continue (*i.e.,* no shutdown is required) so long as no marine mammals have been detected. The use of boomers, sparkers, and CHIRPs would not be allowed to commence or resume until the animal(s) has been confirmed to have left the shutdown zone or until a full 15 minutes (for small odontocetes and seals) or 30 minutes (for all other marine mammals) have elapsed with no further sighting. Any large whale sighted by a PSO within 1,000 m of the boomers, sparkers, and CHIRPs that cannot be identified as a non-North Atlantic right whale must be treated as if it were a North Atlantic right whale.

The shutdown requirement would be waived for small delphinids of the following genera: *Delphinus, Stenella, Lagenorhynchus,* and *Tursiops.* Specifically, if a delphinid from the specified genera is visually detected approaching the vessel (*i.e.,* to bow-ride) or towed equipment, shutdown would not be required. Furthermore, if there is uncertainty regarding identification of a marine mammal species (*i.e.,* whether the observed marine mammal(s) belongs to one of the delphinid genera for which shutdown is waived), the PSOs would use their best professional judgment in making the decision to call for a shutdown. Shutdown would be required if a delphinid that belongs to a genus other than those specified is detected in the shutdown zone.

If a boomer, sparker, or CHIRP is shut down for reasons other than mitigation (*e.g.,* mechanical difficulty) for less than 30 minutes, it would be allowed to be activated again without ramp-up only if (1) PSOs have maintained constant observation, and (2) no additional detections of any marine mammal occurred within the respective shutdown zones. If a boomer, sparker, or CHIRP was shut down for a period longer than 30 minutes, then all clearance and ramp-up procedures would be required, as previously described.

TABLE 34—DISTANCES TO THE MITIGATION ZONES DURING HRG SURVEYS

Marine mammals	HRG surveys	
	Clearance zone (m)	Shutdown zone (m)
North Atlantic right whale—visual detection	500	500
Endangered species (excluding North Atlantic right whales)	500	500
All other marine mammals [a]	100	100

[a] Exceptions are noted for delphinids from genera Delphinus, Lagenorhynchus, Stenella, or Tursiops and seals.

Ramp-Up

At the start or restart of the use of boomers, sparkers, and/or CHIRPs, a ramp-up procedure would be required unless the equipment operates on a binary on/off switch. A ramp-up procedure, involving a gradual increase in source level output, is required at all times as part of the activation of the acoustic source when technically feasible. Operators would ramp up sources to half power for 5 minutes and then proceed to full power. Prior to a ramp-up procedure starting, the operator would have to notify the Lead PSO of the planned start of the ramp-up. This notification time would not be less than 60 minutes prior to the planned ramp-up activities as all relevant PSOs would need the appropriate 30 minute period to monitor prior to the initiation of ramp-up. Prior to ramp-up beginning, the operator must receive confirmation from the PSO that the clearance zone is clear of any marine mammals. All ramp-ups would be scheduled to minimize the overall time spent with the source being activated. The ramp-up procedure must be used at the beginning of HRG survey activities or after more than a 30-minute break in survey activities using the specified HRG equipment to provide additional protection to marine mammals in or near the survey area by allowing them to vacate the area prior to operation of survey equipment at full power.

Dominion Energy would not initiate ramp-up until the clearance process has been completed (see Clearance and Shutdown Zones section above). Ramp-

up activities would be delayed if a marine mammal(s) enters its respective clearance zone. Ramp-up would only be reinitiated if the animal(s) has been observed exiting its respective shutdown zone or until additional time has elapsed with no further sighting (*i.e.,* 15 minutes for small odontocetes and seals, and 30 minutes for all other species).

Fishery Monitoring Surveys

For all pot/trap surveys, Dominion Energy would implement marine mammal monitoring and gear interaction avoidance measures to ensure no marine mammals are taken (*e.g.,* entangled) during the surveys. Monitoring measures would be implemented based on the Atlantic Large Whale Take Reduction Plan (50 CFR 229.32).

All captains and crew conducting the surveys will be trained in marine mammal detection and identification. Dominion Energy and/or its cooperating institutions, contracted vessels, or commercially-hired captains must implement the following ''move-on'' rule. If marine mammals are sighted within 1 nm of the planned location in the 15 minutes before gear deployment, Dominion Energy and/or its cooperating institutions, contracted vessels, or commercially-hired captains, as appropriate, may decide to move the vessel away from the marine mammal to a different section of the sampling area if the animal appears to be at risk of interaction with the gear, based on best professional judgment. If, after moving on, marine mammals are still visible from the vessel, Dominion Energy and/or its cooperating institutions, contracted vessels, or commercially-hired captains may decide to move again or to skip the station. Gear would not be deployed if marine mammals are observed within the area and if a marine mammal is deemed to be at risk of interaction, all gear will be immediately removed. Dominion Energy and/or its cooperating institutions must deploy pot gear as soon as is practicable upon arrival at the sampling station. Dominion Energy and/or its cooperating institutions must initiate marine mammal watches (visual observation) no less than 15 minutes prior to both deployment and retrieval of the pot gear. Marine mammal watches must be conducted by scanning these surrounding waters with the naked eye and binoculars and monitoring effort must be maintained during the entire period of the time that gear is in the water (*i.e.,* throughout gear deployment, fishing, and retrieval).

If marine mammals are sighted near the vessel during the soak and are determined to be at risk of interacting with the gear, then Dominion Energy and/or its cooperating institutions, contracted vessels, or commercially-hired captains must immediately and carefully retrieve the gear as quickly as possible. Dominion Energy and/or its cooperating institutions, contracted vessels, or commercially-hired captains may use best professional judgment in making this decision. Dominion Energy and/or its cooperating institutions, contracted vessels, or commercially-hired captains must ensure that surveys deploy gear fulfilling all pot universal commercial gear configurations such as weak link requirements and marking requirements as specified by applicable take reduction plans as required for commercial pot fisheries. Dominion Energy will be using on-demand fishing systems aimed at reducing the entanglement risk to protected species. These systems include, but are not limited to, spooled systems, buoy and stowed systems, lift bag systems, and grappling. All gear must be clearly labeled as attributed to Dominion Energy's fishery surveys. All fisheries monitoring gear must be fully cleaned and repaired (if damaged) before each use. Any lost gear associated with the fishery surveys will be reported to the NOAA Greater Atlantic Regional Fisheries Office Protected Resources Division (*nmfs.gar.incidental-take@noaa.gov*) as soon as possible or within 24 hours of the documented time of missing or lost gear. This report must include information on any markings on the gear and any efforts undertaken or planned to recover the gear. Finally, all survey vessels will adhere to all vessel mitigation measures (see the Proposed Mitigation section).

Based on our evaluation of the applicant's proposed measures, as well as other measures considered by NMFS, NMFS has preliminarily determined that the proposed mitigation measures would provide the means of affecting the least practicable impact on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Proposed Monitoring and Reporting

In order to promulgate a rulemaking for an activity, section 101(a)(5)(A) of the MMPA states that NMFS must set forth requirements pertaining to the monitoring and reporting of such taking. The MMPA implementing regulations at 50 CFR 216.104(a)(13) indicate that requests for authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present in the proposed action area. Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

- Occurrence of marine mammal species or stocks in the area in which take is anticipated (*e.g.,* presence, abundance, distribution, density);
- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) action or environment (*e.g.,* source characterization, propagation, ambient noise); (2) affected species (*e.g.,* life history, dive patterns); (3) co-occurrence of marine mammal species with the action; or (4) biological or behavioral context of exposure (*e.g.,* age, calving or feeding areas);
- Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;
- How anticipated responses to stressors impact either: (1) long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;
- Effects on marine mammal habitat (*e.g.,* marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat); and/or
- Mitigation and monitoring effectiveness.

Separately, monitoring is also regularly used to support mitigation implementation, which is referred to as mitigation monitoring, and monitoring plans typically include measures that both support mitigation implementation and increase our understanding of the impacts of the activity on marine mammals.

During Dominion Energy's construction activities, visual monitoring by NMFS-approved PSOs would be conducted before, during, and after impact pile driving, vibratory pile driving, and HRG surveys. PAM would also be conducted during all impact pile driving. Observations and acoustic detections by PSOs would be used to support the activity-specific mitigation

measures described above. Also, to increase understanding of the impacts of the activity on marine mammals, observers would record all incidents of marine mammal occurrence at any distance from the vibratory/impact piling and during active HRG acoustic sources, and monitors would document all behaviors and behavioral changes, in concert with distance from an acoustic source. The required monitoring is described below, beginning with PSO measures that are applicable to all activities or monitoring and followed by activity-specific monitoring requirements.

Again, we specify here that although the language contained in this proposed rule directly refers to the applicant, Dominion Energy, all proposed measures discussed herein would also apply to any contractors or other agents working for Dominion Energy specific to the CVOW–C project.

PSO and PAM Operator Requirements

Dominion Energy would be required to collect sighting, behavioral response, and acoustic data related to construction activities for marine mammal species observed in the region of the activity during the period in which the activities occur using NMFS-approved visual PSOs and acoustic PAM operators (see Proposed Mitigation section). All observers must be trained in marine mammal identification and behaviors and are required to have no other construction-related tasks while conducting monitoring. PSOs would monitor all clearance and shutdown zones prior to, during, and following impact pile driving, vibratory pile driving, and during HRG surveys using boomers, sparkers, and CHIRPs (with monitoring durations specified further below). PSOs will also monitor the Level B harassment zones to the extent practicable (noting that some zones are too large to fully observe) and beyond and will document any marine mammals observed. Observers would be located at the best practicable vantage points on the pile driving vessel and, where required, on an aerial platform. Full details regarding all marine mammal monitoring must be included in relevant Plans (*e.g.,* Pile Driving and Marine Mammal Monitoring Plan) that, under this proposed action, Dominion Energy would be required to submit to NMFS for approval at least 180 days in advance of the commencement of any construction activities.

The following measures apply to all visual monitoring efforts:

1. Monitoring must be conducted by NMFS-approved, trained PSOs and PAM operators. PSOs must be placed at the primary location relevant to the activity (*i.e.,* pile driving vessel, HRG survey vessel) and on any necessary dedicated PSO vessels (*e.g.,* additional pile driving vessel(s), if required). PSOs must be in the best vantage point(s) position in order to ensure 360° visual coverage of the entire clearance and shutdown zones, around the observing platform and as much of the Level B harassment zone as possible while still maintaining a safe work environment;

2. PSO and PAM operators must be independent third-party observers and must have no tasks other than to conduct observational effort, collect data, and communicate with and instruct the relevant vessel crew with regard to the presence of protected species and mitigation requirements;

3. PSOs may not exceed 4 consecutive watch hours, must have a minimum 2-hour break between watches, and may not exceed a combined watch schedule of more than 12 hours in a single 24-hour period;

4. PSOs would be required to use appropriate equipment (specified below) to monitor for marine mammals. During periods of low visibility (*e.g.,* darkness, rain, fog, poor weather conditions, *etc.*), PSOs would be required to use alternative technologies (*i.e.,* infrared or thermal cameras) to monitor the shutdown and clearance zones; and

5. PSOs must be in the best vantage point to monitor for marine mammals and implement the relevant clearance and shutdown procedures, when determined to be applicable.

6. PSOs should have the following minimum qualifications:

a. Visual acuity in both eyes (corrected is permissible) sufficient for discernment of moving targets at the water's surface with the ability to estimate the target size and distance. The use of binoculars is permitted and may be necessary to correctly identify the target(s);

b. Ability to conduct field observations and collect data according to the assigned protocols;

c. Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;

d. Writing skills sufficient to document observations, including but not limited to: the number and species of marine mammals observed, the dates and times of when in-water construction activities were conducted, the dates and time when in-water construction activities were suspended to avoid potential incidental injury of marine mammals from construction noise within a defined shutdown zone, and marine mammal behavior; and

e. Ability to communicate orally, by radio, or in-person, with project personnel to provide real-time information on marine mammals observed in the area, as necessary.

Observer teams employed by Dominion Energy, in satisfaction of the mitigation and monitoring requirements described herein, must meet the following additional requirements:

7. PSOs must successfully complete relevant training, including completion of all required coursework and a written and/or oral examination developed for the training;

8. PSOs must have successfully attained a bachelor's degree from an accredited college or university with a major in one of the natural sciences, a minimum of 30 semester hours or equivalent in the biological sciences, and at least one undergraduate course in math or statistics. The educational requirements may be waived if the PSO has acquired the relevant skills through alternate experience. Requests for such a waiver shall be submitted to NMFS and must include written justification. Alternate experience that may be considered includes, but is not limited to: Secondary education and/or experience comparable to PSO duties; previous work experience conducting academic, commercial, or government sponsored marine mammal surveys; or previous work experience as a PSO; the PSO should demonstrate good standing and consistently good performance of PSO duties;

9. One observer will be designated as lead observer or monitoring coordinator (''Lead PSO''). This Lead PSO would be required to have a minimum of 90 days of at-sea experience working in this role in an offshore environment and would be required to have no more than eighteen months elapsed since the conclusion of their last at-sea experience;

10. At least one PSO located on platforms (either vessel-based or aerial) would be required to have a minimum of 90 days of at-sea experience working in this role in an offshore environment and would be required to have no more than eighteen months elapsed since the conclusion of their last at-sea experience; and

11. All PSOs and PAM operators must be approved by NMFS. Dominion Energy would be required to submit resumes of the initial set of PSOs necessary to commence the project to NMFS Office of Protected Resources (OPR) for approval at least 60 days prior to the first day of in-water construction activities requiring PSOs. Resumes

would need to include the dates of training and any prior NMFS approval as well as the dates and description of their last PSO experience and must be accompanied by information documenting their successful completion of an acceptable training course. NMFS would allow three weeks to approve PSOs from the time that the necessary information is received by NMFS after which any PSOs that meet the minimum requirements would automatically be considered approved.

Some Dominion Energy activities may require the use of PAM, which would necessitate the employment of at least one PAM operator on duty at any given time. PAM operators would be required to meet several of the specified requirements described above for PSOs, including: 2, 4, 6b–e, 8, 9, 10, and 11. Furthermore, PAM operators would be required to complete a specialized training for operating PAM systems and must demonstrate familiarity with the PAM system on which they would be working.

PSOs would be able to act as both acoustic and visual observers for the project if the individual(s) demonstrates that they have had the required level and appropriate training and experience to perform each task. However, a single individual would not be allowed to concurrently act in both roles or exceed work hours, as specified in #4 above.

Dominion Energy's personnel and PSOs would also be required to use available sources of information on North Atlantic right whale presence to aid in monitoring efforts. This includes:

1. Daily monitoring of the Right Whale Sightings Advisory System;

2. Consulting of the WhaleAlert app; and,

3. Monitoring of the Coast Guard's VHF Channel 16 throughout the day to receive notifications of any sightings and information associated with any Dynamic Management Areas to plan construction activities and vessel routes, if practicable, to minimize the potential for co-occurrence with North Atlantic right whales.

Additionally, whenever multiple project-associated vessels (of any size; *e.g.,* construction survey, crew transfer) are operating concurrently, any visual observations of ESA-listed marine mammals must be communicated to PSOs and vessel captains associated with other vessels to increase situational awareness.

The following are proposed monitoring and reporting measures that NMFS would require specific to each construction activity:

WTG and OSS Foundation Installation

Dominion Energy would be required to implement the following monitoring procedures during all impact pile driving of WTG and OSS foundations.

During all observations associated with pile driving (vibratory and/or impact), PSOs would use magnification (7x) binoculars and the naked eye to search continuously for marine mammals. At least one PSO would be located on the foundation pile driving vessel and a secondary dedicated-PSO vessel. These PSOs must be equipped with Big Eye binoculars (*e.g.,* 25 x 50; 2,7 view angle; individual ocular focus; height control) of appropriate quality. These would be pedestal-mounted on the deck at the most appropriate vantage point that provides optimal sea surface observation and PSO safety.

Dominion Energy would be required to have a minimum of four PSOs actively observing marine mammals before, during, and after (specific times described below) the installation of foundation piles (monopiles and pin piles for jacket foundations). At least two PSOs must be actively observing on the pile driving vessel while at least two PSOs are actively observing on a secondary, PSO-dedicated vessel. Concurrently, at least one acoustic PSO (*i.e.,* PAM operator) must be actively monitoring for marine mammals before, during and after impact pile driving.

As described in the Proposed Mitigation section, if the minimum visibility zone cannot be visually monitored at all times, pile driving operations may not commence or, if active, must shutdown, unless Dominion Energy determines shutdown is not practicable due to imminent risk of injury or loss of life to an individual, pile refusal, or pile instability.

To supplement visual observation efforts, Dominion Energy would utilize at least one PAM operator before, during, and after pile installation. This PAM operator would assist the PSOs in ensuring full coverage of the clearance and shutdown zones. All on-duty visual PSOs would remain in contact with the on-duty PAM operator, who would monitor the PAM systems for acoustic detections of marine mammals in the area. In some cases, the PAM operator and workstation may be located onshore or they may be located on a vessel. In either situation, PAM operators would maintain constant and clear communication with visual PSOs on duty regarding detections of marine mammals that are approaching or within the applicable zones related to impact pile driving. Dominion Energy would utilize PAM to acoustically monitor the clearance and shutdown zones (and beyond for situational awareness), and would record all detections of marine mammals and estimated distance, when possible, to the activity (noting whether they are in the Level A harassment or Level B harassment zones). To effectively utilize PAM, Dominion Energy would implement the following protocols:

- PAM operators would be stationed on at least one of the dedicated monitoring vessels in addition to the PSOs, or located remotely/onshore.
- All PAM operators must be NMFS-approved, third party contractors. PAM operators would have completed specialized training for operating PAM systems prior to the start of monitoring activities, including identification of species-specific mysticete vocalizations (*e.g.,* North Atlantic right whales). The PAM operator must demonstrate that they have prior experience with similar acoustic projects and/or completed specialized training for operating PAM systems and detecting and identifying Atlantic Ocean marine mammals sounds.
- Where localization of sounds or deriving bearings and distance are proposed, the PAM operators need to have demonstrated experience in using this technique.
- PAM operators must demonstrate experience with relevant acoustic software and equipment.
- PAM operators must have the qualifications and relevant experience/training to safely deploy and retrieve equipment and program the software, as necessary.
- PAM operators must be able to test software and hardware functionality prior to operation.
- PAM operators must have evaluated their acoustic detection software using the PAM Atlantic baleen whale annotated data set available through the National Centers for Environmental Information (NCEI; *https://www.ncei.noaa.gov/*) and provide evaluation/performance metric.

The PAM operator(s) on-duty would monitor the PAM systems for acoustic detections of marine mammals that are vocalizing in the area. Any detections would be conveyed to the PSO team and any PSO sightings would be conveyed to the PAM operator for awareness purposes, and to identify if mitigation is to be triggered. For real-time PAM systems, at least one PAM operator would be designated to monitor each system by viewing data or data products that are streamed in real-time or near real-time to a computer workstation and monitor located on a project vessel or onshore. The PAM operator would

inform the Lead PSO on duty of marine mammal detections approaching or within applicable ranges of interest to the pile driving activity via the data collection software system (*i.e.,* Mysticetus or similar system), who would be responsible for requesting that the designated crew member implement the necessary mitigation procedures (*i.e.,* delay or shutdown). Acoustic monitoring would complement visual monitoring at all times and would cover an area of at least the Level B harassment zone around each foundation.

All PSOs and PAM operators would be required to begin monitoring 60 minutes prior to and during all impact pile driving and for 30 minutes after impact driving. However, PAM operators must review acoustic data from the previous 24 hours as well. As described in the Proposed Mitigation section, pile driving of monopiles and pin piles would only commence when the minimum visibility zone (extending 2.0 km from the pile, based on NMFS' proposed distance) is fully visible (*e.g.,* not obscured by darkness, rain, fog, *etc.*) and the clearance zones are clear of marine mammals for at least 30 minutes, as determined by the Lead PSO, immediately prior to the initiation of impact pile driving.

For North Atlantic right whales, any visual (regardless of distance) or acoustic detection would trigger a delay to the commencement of pile driving. In the event that a large whale is sighted or acoustically detected that cannot be confirmed as a non-North Atlantic right whale species, it must be treated as if it were a North Atlantic right whale. Following a shutdown, monopile/pin pile installation may not recommence until the minimum visibility zone is fully visible and the clearance zone is clear of marine mammals for 30 minutes and no marine mammals have been detected acoustically within the PAM clearance zone for 30 minutes.

During the time period in which Dominion Energy would be allowed to pile driving (May 1–October 31), North Atlantic right whales are most likely to occur in May. Dominion Energy has proposed additional enhanced monitoring measures to supplement PSO and PAM operators during the month of May (per the May Pile Driving Memo Dominion Energy submitted to NMFS on March 23, 2023 and which can be found on NMFS' website), including the use of drones equipped with infrared technology (referred to as autonomous vehicles, remote operated vehicles in Dominion Energy's PSMMP), additional PSO vessels on-site, aerial surveys, and/or 24-hour PAM use. These measures, as proposed by Dominion Energy, would not prevent or replace other proposed monitoring measures (*i.e.,* PSOs and/or PAM operators). Instead, these additional measures would serve to complement and strengthen other monitoring approaches. Dominion Energy would seek to use autonomous or remotely operated vehicles (*i.e.,* drones) that may use infrared technology; then the use of additional PSOs for enhanced coverage; and then aerial surveys. While Dominion Energy proposed these measures, they have not committed to implementing these measures in order to proceed with foundation installation in May. Hence, NMFS is not proposing to require them here. However, we describe requirements for drone use below in the case that Dominion Energy does employ drones in addition to the previously described PSO and acoustic monitoring requirements.

If drones are deployed during May foundation installation activities Dominion Energy would undertake monitoring approaches in a way that would ensure no additional behavioral harassment or impacts on marine mammals would occur. While specifics on Dominion Energy's drone strategy was not provided in either the ITA application, nor the PSMMP, given ongoing and planned testing to occur in 2023, NMFS would require that:

- All drone operators and associated drone crews would be fully trained, qualified, and would operate in compliance with current Federal Aviation Administration (FAA), Federal, State, and local standards and would be operated in accordance with 14 CFR part 107 (Small Unmanned Aircraft Systems, Docket FAA–2015–0150, Amdt. 107–1, 81 FR 42209, June 28, 2016, unless otherwise noted);
- An appropriate number of drone operators and crews would be utilized, with some personnel operating the drone and others monitoring the instrumentation for marine mammal identification in real-time (*i.e.,* would be trained and certified PSOs);
- All monitoring crews (*i.e.,* PSOs operating drones) would meet the requirements and qualifications previously described in this proposed rulemaking;
- All drones would maintain appropriate altitudes and minimize maneuvers or circling activities that may incur behavioral harassment to marine mammals and appropriate distances (to be decided based on the 2023 testing by Dominion Energy) would be required if mothers and calves are sighted; and
- All drone visual observations would be incorporated into the standard reporting requirements, described later on in this proposed rulemaking.

The advancement of additional monitoring measures have the potential to enhance capabilities in situations where there is limited visibility. However, implementation of such strategies would require additional testing by Dominion Energy (via 2023 trials) and additional discussions between NMFS.

For all foundation installation activities, Dominion Energy must prepare and submit a Pile Driving and Marine Mammal Monitoring Plan (including information related to the proposed enhanced monitoring measures described above) to NMFS for review and approval at least 180 days before the start of any pile driving. The plans must include final pile driving project design (*e.g.,* number and type of piles, hammer type, noise abatement systems, anticipated start date, *etc.*) and all information related to PAM PSO monitoring protocols for pile-driving and visual PSO protocols for all activities.

Cable Landfall Activities—Temporary Cofferdams

Dominion Energy would be required to implement the following procedures during all vibratory pile driving activities associated with the installation and removal of temporary cofferdams.

During all observation periods related to vibratory pile driving, PSOs must use standard handheld (7x) binoculars and the naked eye to search continuously for marine mammals. Dominion Energy would be required to have a minimum of two PSOs on active duty during any installation and removal activities related to temporary cofferdams. These PSOs would always be located at the best vantage point(s) on the vibratory pile driving platform or secondary platform in the immediate vicinity of the primary platforms in order to ensure that appropriate visual coverage is available of the entire visual clearance zone and as much of the Level B harassment zone as possible. NMFS would not require the use of PAM for these activities.

PSOs would monitor the clearance zone for the presence of marine mammals for 30 minutes before, throughout the installation of the piles, and for 30 minutes after the activities have ceased. Installation may only commence when visual clearance zones are fully visible (*e.g.,* not obscured by darkness, rain, fog, *etc.*) and clear of marine mammals, as determined by the

Lead PSO, for at least 30 minutes immediately prior to initiation of vibratory pile driving.

Cable Landfall Activities—Temporary Goal Posts

Dominion Energy would be required to implement the following procedures during all impact pile driving activities associated with the installation of temporary goal posts. These requirements generally mirror the requirements described above for temporary cofferdams.

During all observation periods related to impact pile driving, PSOs must use standard handheld (7x) binoculars and the naked eye to search continuously for marine mammals. Dominion Energy would be required to have a minimum of two PSOs on active duty during any installation activities related to temporary goal posts. These PSOs would always be located at the best vantage point(s) on the impact pile driving platform or secondary platform in the immediate vicinity of the primary platforms in order to ensure that appropriate visual coverage is available of the entire visual clearance zone and as much of the Level B harassment zone as possible. NMFS would not require the use of PAM for these activities.

PSOs would monitor the clearance zone for the presence of marine mammals for 30 minutes before, throughout the installation of the pipe piles, and for 30 minutes after the activities have ceased. Installation may only commence when visual clearance zones are fully visible (*e.g.,* not obscured by darkness, rain, fog, *etc.*) and clear of marine mammals, as determined by the Lead PSO, for at least 30 minutes immediately prior to initiation of impact pile driving.

HRG Surveys

Dominion Energy would be required to implement the following procedures during all HRG surveys.

During all observation periods, PSOs must use standard handheld (7x) binoculars and the naked eye to search continuously for marine mammals.

Between four and six PSOs would be present on every 24-hour survey vessel, and two to three PSOs would be present on every 12-hour survey vessel. Dominion Energy would be required to have at least one PSO on active duty during HRG surveys that are conducted during daylight hours (*i.e.,* from 30 minutes prior to sunrise through 30 minutes following sunset) and at least two PSOs during HRG surveys that are conducted during nighttime hours.

All PSOs would begin monitoring 30 minutes prior to the activation of boomers, sparkers, or CHIRPs; throughout use of these acoustic sources, and for 30 minutes after the use of the acoustic sources has ceased.

Given that multiple HRG vessels may be operating concurrently, any observations of marine mammals would be required to be communicated to PSOs on all nearby survey vessels.

Ramp-up of boomers, sparkers, and CHIRPs would only commence when visual clearance zones are fully visible (*e.g.,* not obscured by darkness, rain, fog, *etc.*) and clear of marine mammals, as determined by the Lead PSO, for at least 30 minutes immediately prior to initiation of survey activities utilizing the specified acoustic sources.

During daylight hours when survey equipment is not operating, Dominion Energy would ensure that visual PSOs conduct, as rotation schedules allow, observations for comparison of sighting rates and behavior with and without use of the specified acoustic sources. Off-effort PSO monitoring must be reflected in the monthly PSO monitoring reports.

Marine Mammal Passive Acoustic Monitoring

As described previously, Dominion Energy would be required to utilize a PAM system to supplement visual monitoring for all foundation installation activities, inclusive of vibratory and impact hammer installation. Training and qualified PAM operators would monitor the PAM systems. PAM operators may be on watch for a maximum of four consecutive hours followed by a break of at least two hours between watches. Again, PSOs can act as PAM operators or visual PSOs (but not simultaneously) as long as they demonstrate that their training and experience are sufficient to perform each task. The PAM system must be monitored by a minimum of one PAM operator beginning at least 60 minutes prior to the initiation of soft-start of foundation piles, at all times during installation, and for 30 minutes after pile driving has ceased. To further aid in detections of North Atlantic right whales during the highest occurrence month (May) during the construction period (and as described above for monitoring during *WTG and OSS foundation Installation*), PAM would be implemented 24-hours prior to foundation activities.

PAM operators would monitor the signals from the hydrophones in both real-time using headphones and visually via the outputs on a computer monitor. PAM operators must immediately communicate all detections of marine mammals at any distance (*i.e.,* not limited to the Level B harassment zones) to visual PSOs, including any determination regarding species identification, distance, and bearing and the degree of confidence in the determination. Based on the information provided by the PAM operator, the Lead PSO on duty would ensure that the appropriate mitigation measures are implemented, if determined to be necessary. A PAM detection alone, even without a visual confirmation that a marine mammal is within a relevant clearance and/or shutdown zone, would trigger mitigation measures, such as a delay or the shutdown of pile driving activities (if safe to do so). Additionally, PAM detections of North Atlantic right whales, even without a visual detection, would trigger the appropriate mitigation measures.

PAM systems may be used for real-time mitigation monitoring. The PAM system would be, at a minimum, capable of detecting animals at least 5 km away from the pile driving location. The PAM system would offer real-time detections of low-frequency cetaceans with a targeted frequency range of 20 Hz to 1,500 Hz, with a specific focus on a system capable of monitoring the bandwidth for North Atlantic right whales (65–400 Hz; corresponding to information provided in Van Parijs *et al.* (2021)). The requirement for real-time detection and localization limits the types of PAM technologies that can be used to those systems that are either cabled, satellite, or radio-linked. It is most likely that Dominion Energy would deploy fixed surface buoys and/or gliding autonomous vehicle PAM devices. The system chosen will dictate the design and protocols of the PAM operations. Dominion Energy is not considering bottom-mounted, fixed cabled PAM systems, in part due to the ability of most of these systems to record data archivally rather than in real-time or near-real-time. Towed systems, while being considered, are not preferred as they could be easily masked by vessel noise. For a review of the PAM systems Dominion Energy is considering, see section 7.3 and 7.4 of the PSMMP included as a supplement to Dominion Energy's ITA application.

At this stage, Dominion Energy has not chosen the appropriate and final PAM systems for the CVOW–C project. However, when an appropriate system or configuration of systems is chosen, a Passive Acoustic Monitoring (PAM) Plan must be submitted to NMFS for review and approval at least 180 days prior to the planned start of foundation installations. PAM should follow standardized measurement, processing methods, reporting metrics, and metadata standards for offshore wind

(Van Parijs *et al.,* 2021). The plan must describe all proposed PAM equipment, procedures, and protocols. However, NMFS considers PAM usage for every project on a case-by-case basis and would continue discussions with Dominion Energy regarding selection of the PAM system that is most appropriate for the proposed project. The authorization to take marine mammals would be contingent upon NMFS' approval of the PAM Plan.

Acoustic Monitoring for Sound Field and Harassment Isopleth Verification (SFV)

During the installation (inclusive of both vibratory and impact pile driving approaches) of the first three WTG monopile foundations and all three OSSs using jacket foundations, Dominion Energy must empirically determine source levels, the ranges to the isopleths corresponding to the Level A harassment and Level B harassment thresholds, and the transmission loss coefficient(s). Dominion Energy may also estimate ranges to the Level A harassment and Level B harassment isopleths by extrapolating from *in situ* measurements conducted at several distances from the monopile and pin piles in each OSS being driven. Dominion Energy must measure received levels at a standard distance of 750 m from the monopile and pin piles in each OSS and at both the presumed modeled Level A harassment and Level B harassment isopleth ranges or an alternative distance(s) as agreed to in the SFV Plan. In addition to the 750 m distance, Dominion Energy has also proposed to monitor at 2,500 m and 5,000 m from the pile, as well as the extent of the modeled Level B harassment zone to verify the accuracy of the modeled zones.

If acoustic field measurements collected during installation of the WTG monopiles and OSS foundations indicates ranges to the isopleths corresponding to Level A harassment and Level B harassment thresholds are greater than the ranges predicted by modeling (assuming 10-dB attenuation), Dominion Energy must implement additional noise attenuation measures prior to installing the next WTG monopile or OSS jacket foundation. Dominion Energy has also proposed to monitor and collect acoustic information on a subsequent monopile in the event that obtained technical information indicates a monopile would produce a larger sound field than previously monitored. Initial additional measures may include improving the efficacy of the implemented noise mitigation technology (*e.g.,* BBC, dBBC) and/or modifying the piling schedule to reduce the sound source. Each sequential modification would be evaluated empirically by acoustic field measurements. In the event that field measurements indicate ranges to isopleths corresponding to Level A harassment and Level B harassment thresholds are greater than the ranges predicted by modeling (assuming 10-dB attenuation), NMFS may expand the relevant harassment, clearance, and shutdown zones and associated monitoring protocols. If harassment zones are expanded beyond an additional 1,500 m, additional PSOs would be deployed on additional platforms with each observer responsible for maintaining watch in no more than 180° and of an area with a radius no greater than 1,500 m.

If acoustic measurements indicate that ranges to isopleths corresponding to the Level A harassment and Level B harassment thresholds are less than the ranges predicted by modeling (assuming 10-dB attenuation), Dominion Energy may request a modification of the clearance and shutdown zones for pile driving of WTG monopiles and OSS foundation pin piles. For NMFS to consider a modification request, Dominion Energy will have had to conduct SFV on three or more WTG monopiles and two full OSS jacket foundations (8 total pin piles), thus far, to verify that zone sizes are consistently smaller than those predicted by modeling (assuming 10-dB attenuation). In addition, if a subsequent monopile installation location is selected that was not represented by previous three locations (*i.e.,* substrate composition, water depth), SFV would be required. Furthermore, if pile driving of WTG foundations occurs across different seasons from the season the first monopile was installed in (*i.e.,* the first monopile was driven in the spring and as pile driving would also occur in the fall, acoustic measurements for the pile driven in the fall would also be required to occur), Dominion Energy has proposed, for comparison, to collect acoustic measurements on these piles as well.

Upon receipt of an interim SFV report, NMFS may adjust zones (*i.e.,* Level A harassment, Level B harassment, clearance, shutdown, and/or minimum visibility zone) to reflect SFV measurements. The shutdown and clearance zones for pile driving would be equivalent to the measured range to the Level A harassment isopleths plus 10 percent (shutdown zone) and 20 percent (clearance zone), rounded up to the nearest 100 m for PSO clarity. The minimum visibility zone would be based on the largest measured distance to the Level A harassment isopleth for large whales. Regardless of SFV, a North Atlantic right whale detected at any distance by PSOs would continue to result in a delay to the start of pile driving. Similarly, if pile driving has commenced, shutdown would be called for in the event a North Atlantic right whale is observed at any distance. That is, the visual clearance and shutdown criteria for North Atlantic right whales would not change, regardless of field acoustic measurements. The Level B harassment zone would be equal to the largest measured range to the Level B harassment isopleth.

The SFV plan must also include how operational noise from the wind farm would be monitored. Dominion Energy would be required to estimate source levels based on measurements in the near and far-field at a minimum of three locations from each foundation monitored. These data must be used to also identify estimated transmission loss rates. Operational parameters (*e.g.,* direct drive/gearbox information, turbine rotation rate) as well as sea state conditions and information on nearby anthropogenic activities (*e.g.,* vessels transiting or operating in the area) must be reported.

Dominion Energy must submit a SFV Plan at least 180 days prior to the planned start of impact pile driving activities. The plan must describe how Dominion Energy would ensure that the first three WTG monopile and OSS jacket (using pin piles) foundation installation sites selected for SFV are representative of the rest of the monopile and pin pile installation sites. Dominion Energy must include information on how additional sites/scenarios would be selected for SFV should it be determined that these sites/scenarios are not representative of all other monopile installation sites. The plan must also include the methodology for collecting, analyzing, and preparing SFV data for submission to NMFS. The plan must describe how the effectiveness of the sound attenuation methodology would be evaluated based on the results. Dominion Energy must also provide, as soon as they are available but no later than 48 hours after each installation, the initial results of the SFV measurements to NMFS in an interim report after each monopile for the first three piles.

Reporting

Prior to any construction activities occurring, Dominion Energy would provide a report to NMFS (at *itp.potlock@noaa.gov* and *pr.itp.monitoringreports@noaa.gov*)

documenting that all required training for Dominion Energy personnel (*i.e.,* vessel crews, vessel captains, PSOs, and PAM operators) has been completed. Dominion Energy has also proposed to contact both BOEM and NMFS within 24-hour of the commencement of pile driving activities for the year and again within 24 hours of the completion of the pile driving activities for that year (based on May 1st through October 31st).

NMFS would require standardized and frequent reporting from Dominion Energy during the life of the proposed regulations and LOA. All data collected relating to the Dominion Energy project would be recorded using industry-standard software (*e.g.,* Mysticetus or a similar software) installed on field laptops and/or tablets. Dominion Energy would be required to submit weekly, monthly and annual reports as described below. During activities requiring PSOs, the following information would be collected and reported related to the activity being conducted:

- Date and time that monitored activity begins or ends;
- Construction activities occurring during each observation period;
- Watch status (*i.e.,* sighting made by PSO on/off effort, opportunistic, crew, alternate vessel/platform);
- PSO who sighted the animal;
- Time of sighting;
- Weather parameters (*e.g.,* wind speed, percent cloud cover, visibility);
- Water conditions (*e.g.,* sea state, tide state, water depth);
- All marine mammal sightings, regardless of distance from the construction activity;
- Species (or lowest possible taxonomic level possible);
- Pace of the animal(s);
- Estimated number of animals (minimum/maximum/high/low/best);
- Estimated number of animals by cohort (*e.g.,* adults, yearlings, juveniles, calves, group composition, *etc.*);
- Description (*i.e.,* as many distinguishing features as possible of each individual seen, including length, shape, color, pattern, scars or markings, shape and size of dorsal fin, shape of head, and blow characteristics);
- Description of any marine mammal behavioral observations (*e.g.,* observed behaviors such as feeding or traveling) and observed changes in behavior, including an assessment of behavioral responses thought to have resulted from the specific activity;
- Animal's closest distance and bearing from the pile being driven or specified HRG equipment and estimated time spent within the Level A harassment and/or Level B harassment zones;
- Construction activity at time of sighting (*e.g.,* vibratory installation/removal, impact pile driving, HRG survey), use of any noise abatement device(s), and specific phase of activity (*e.g.,* ramp-up of HRG equipment, HRG acoustic source on/off, soft start for pile driving, active pile driving, *etc.*);
- Description of any mitigation-related action implemented, or mitigation-related actions called for but not implemented, in response to the sighting (*e.g.,* delay, shutdown, *etc.*) and time and location of the action; and
- Other human activity in the area.

For all real-time acoustic detections of marine mammals, the following must be recorded and included in weekly, monthly, annual, and final reports:

1. Location of hydrophone (latitude & longitude; in Decimal Degrees) and site name;
2. Bottom depth and depth of recording unit (in meters);
3. Recorder (model & manufacturer) and platform type (*i.e.,* bottom-mounted, electric glider, *etc.*), and instrument ID of the hydrophone and recording platform (if applicable);
4. Time zone for sound files and recorded date/times in data and metadata (in relation to Universal Coordinated Time (UTC); *i.e.,* Eastern Standard Time (EST) time zone is UTC–5);
5. Duration of recordings (start/end dates and times; in ISO 8601 format, yyyy-mm-ddTHH:MM:SS.sssZ);
6. Deployment/retrieval dates and times (in ISO 8601 format);
7. Recording schedule (must be continuous);
8. Hydrophone and recorder sensitivity (in dB *re. 1* μ*Pa*);
9. Calibration curve for each recorder;
10. Bandwidth/sampling rate (in Hz);
11. Sample bit-rate of recordings; and
12. Detection range of equipment for relevant frequency bands (in meters).

For each detection the following information must be noted:

13. Species identification (if possible);
14. Call type and number of calls (if known);
15. Temporal aspects of vocalization (date, time, duration, *etc.,* date times in ISO 8601 format);
16. Confidence of detection (detected, or possibly detected);
17. Comparison with any concurrent visual sightings;
18. Location and/or directionality of call (if determined) relative to acoustic recorder or construction activities;
19. Location of recorder and construction activities at time of call;
20. Name and version of detection or sound analysis software used, with protocol reference;
21. Minimum and maximum frequencies viewed/monitored/used in detection (in Hz); and
22. Name of PAM operator(s) on duty.

If a North Atlantic right whale is detected, data shall be submitted to *nmfs.pacmdata@noaa.gov* using the NMFS Passive Acoustic Reporting System Metadata and Detection data spreadsheets (*https://www.fisheries.noaa.gov/resource/document/passive-acoustic-reporting-system-templates*) as soon as feasible but no longer than 24 hours after the detection. Submit the completed data templates to *nmfs.pacmdata@noaa.gov*. The full acoustic species Detection data, Metadata and GPS data records, from real-time data, must be submitted within 90 days via the ISO standard metadata forms available on the NMFS Passive Acoustic Reporting System website (*https://www.fisheries.noaa.gov/resource/document/passive-acoustic-reporting-system-template*). Submit the completed data templates to *nmfs.pacmdata@noaa.gov*. Full detection data and metadata must be submitted monthly on the 15th of every month for the previous month via the webform on the NMFS North Atlantic right whale Passive Acoustic Reporting System website (*https://www.fisheries.noaa.gov/resource/document/passive-acoustic-reporting-system-templates*).

If a North Atlantic right whale is observed at any time by PSOs or personnel on or in the vicinity of any impact or vibratory pile-driving vessel, dedicated PSO vessel, construction survey vessel, or during vessel transit, Dominion Energy must immediately report sighting information to the NMFS North Atlantic Right Whale Sighting Advisory System (866) 755–6622, to the U.S. Coast Guard via channel 16, and through the WhaleAlert app (*https://www.whalealert.org/*) as soon as feasible but no longer than 24 hours after the sighting. Information reported must include, at a minimum: time of sighting, location, and number of North Atlantic right whales observed.

SFV Interim Report—Dominion Energy would be required to provide, as soon as they are available but no later than 48 hours after each installation, the initial results of SFV measurements to NMFS in an interim report after each monopile for the first three piles and any subsequent piles monitored.

Weekly Report—Dominion Energy would be required to compile and submit weekly PSO, PAM, and SFV reports to NMFS

(*PR.ITP.monitoringreports@noaa.gov*) that document the daily start and stop of all pile driving or HRG survey activities, the start and stop of associated observation periods by PSOs, details on the deployment of PSOs, a record of all detections of marine mammals (acoustic and visual), any mitigation actions (or if mitigation actions could not be taken, provide reasons why), and details on the noise abatement system(s) used and its performance. Weekly reports would be due on Wednesday for the previous week (Sunday–Saturday). The weekly report would also identify which turbines become operational and when (a map must be provided). Once all foundation pile installation is complete, weekly reports would no longer be required.

Monthly Report—Dominion Energy would be required to compile and submit monthly reports to NMFS (at *itp.potlock@noaa.gov* and *PR.ITP.monitoringreports@noaa.gov*) that include a summary of all information in the weekly reports, including project activities carried out in the previous month, vessel transits (number, type of vessel, and route), number of piles installed, all detections of marine mammals, and any mitigative actions taken. Monthly reports would be due on the 15th of the month for the previous month. The monthly report would also identify which turbines become operational and when (a map must be provided). Once foundation pile installation is complete, monthly reports would no longer be required.

Annual Report—Dominion Energy would be required to submit an annual PSO, PAM, and SFV summary report to NMFS (at *itp.potlock@noaa.gov* and *PR.ITP.monitoringreports@noaa.gov*) no later than 90 days following the end of a given calendar year describing, in detail, all of the information required in the monitoring section above. A final annual report would be prepared and submitted within 30 calendar days following receipt of any NMFS comments on the draft report. If no comments were received from NMFS within 60 calendar days of NMFS' receipt of the draft report, the report would be considered final.

Final Report—Dominion Energy must submit its draft final report(s) to NMFS (at *itp.potlock@noaa.gov* and *PR.ITP.monitoringreports@noaa.gov*) on all visual and acoustic monitoring conducted under the LOA within 90 calendar days of the completion of activities occurring under the LOA. A final report must be prepared and submitted within 30 calendar days following receipt of any NMFS comments on the draft report. If no comments are received from NMFS within 30 calendar days of NMFS' receipt of the draft report, the report shall be considered final.

Situational Reporting

Specific situations encountered during the development of the Dominion Energy project would require reporting. These situations and the relevant procedures include:

• If a large whale is detected during vessel transit, the following information must be recorded and reported:

a. Time, date, and location;

b. The vessel's activity, heading, and speed;

c. Sea state, water depth, and visibility;

d. Marine mammal identification to the best of the observer's ability (*e.g.,* North Atlantic right whale, whale, dolphin, seal);

e. Initial distance and bearing to marine mammal from vessel and closest point of approach; and,

f. Any avoidance measures taken in response to the marine mammal sighting.

• If a sighting of a stranded, entangled, injured, or dead marine mammal occurs, the sighting would be reported to NMFS OPR, the NMFS Greater Atlantic Regional Fisheries Office (GARFO) Marine Mammal and Sea Turtle Stranding & Entanglement Hotline (866–755–6622), and the U.S. Coast Guard within 24 hours. If the injury or death was caused by a project activity, Dominion Energy must immediately cease all activities until NMFS OPR is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the LOA. NMFS may impose additional measures to minimize the likelihood of further prohibited take and ensure MMPA compliance. Dominion Energy may not resume their activities until notified by NMFS. The report must include the following information:

a. Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);

b. Species identification (if known) or description of the animal(s) involved;

c. Condition of the animal(s) (including carcass condition if the animal is dead);

d. Observed behaviors of the animal(s), if alive;

e. If available, photographs or video footage of the animal(s); and

f. General circumstances under which the animal was discovered.

• In the event of a vessel strike of a marine mammal by any vessel associated with the CVOW–C project, Dominion Energy shall immediately report the strike incident to the NMFS OPR and the GARFO within and no later than 24 hours. Dominion Energy must immediately cease all activities until NMFS OPR is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the LOA. NMFS may impose additional measures to minimize the likelihood of further prohibited take and ensure MMPA compliance. Dominion Energy may not resume their activities until notified by NMFS. The report must include the following information:

a. Time, date, and location (latitude/longitude) of the incident;

b. Species identification (if known) or description of the animal(s) involved;

c. Vessel's speed during and leading up to the incident;

d. Vessel's course/heading and what operations were being conducted (if applicable);

e. Status of all sound sources in use;

f. Description of avoidance measures/requirements that were in place at the time of the strike and what additional measures were taken, if any, to avoid strike;

g. Environmental conditions (*e.g.,* wind speed and direction, Beaufort sea state, cloud cover, visibility) immediately preceding the strike;

h. Estimated size and length of animal that was struck;

i. Description of the behavior of the marine mammal immediately preceding and following the strike;

j. If available, description of the presence and behavior of any other marine mammals immediately preceding the strike;

k. Estimated fate of the animal (*e.g.,* dead, injured but alive, injured and moving, blood or tissue observed in the water, status unknown, disappeared); and

l. To the extent practicable, photographs or video footage of the animal(s).

Sound Monitoring Reporting

As described previously, Dominion Energy would be required to provide the initial results of SFV (including measurements) to NMFS in interim reports after each monopile installation for the first three piles (and any subsequent piles) as soon as they are available, but no later than 48 hours after each installation. In addition to in situ measured ranges to the Level A harassment and Level B harassment

isopleths, the acoustic monitoring report must include: hammer energies (pile driving), SPL_{peak}, SPL_{rms} that contains 90 percent of the acoustic energy, single strike sound exposure level, integration time for SPL_{rms}, and 24-hour cumulative SEL extrapolated from measurements. The sound levels reported must be in median and linear average (*i.e.,* average in linear space), and in dB. All these levels must be reported in the form of median, mean, max, and minimum. The SEL and SPL power spectral density and one-third octave band levels (usually calculated as decidecade band levels) at the receiver locations should be reported. The acoustic monitoring report must also include: a description of the SFV PAM hardware and software, including software version used, calibration data, bandwidth capability and sensitivity of hydrophone(s), any filters used in hardware or software, any limitations with the equipment, a description of the hydrophones used, hydrophone and water depth, distance to the pile driven, sediment type at the recording location, and local environmental conditions (*e.g.,* wind speed). In addition, pre- and post-activity ambient sound levels (broadband and/or within frequencies of concern) should be reported. Finally, the report must include a description of the noise abatement system and operational parameters (*e.g.,* bubble flow rate, distance deployed from the pile, *etc.*), and any action taken to adjust the noise abatement system. Final results of SFV must be submitted as soon as possible, but no later than within 90 days following completion of impact pile driving of monopiles.

Adaptive Management

The regulations governing the take of marine mammals incidental to Dominion Energy's construction activities would contain an adaptive management component. The reporting requirements associated with this rule are designed to provide NMFS with monitoring data throughout the life of the regulations that can inform potential consideration of whether any changes to mitigation or monitoring are appropriate. The use of adaptive management allows NMFS to consider new information from different sources to determine (with input from Dominion Energy regarding practicability) if mitigation or monitoring measures should be modified (including additions or deletions). Mitigation measures could be modified if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects to marine mammals and if the measures are practicable.

The following are some of the possible sources of applicable data to be considered through the adaptive management process: (1) Results from monitoring reports, as required by MMPA authorizations; (2) results from general marine mammal and sound research; and (3) any information which reveals that marine mammals may have been taken in a manner, extent, or number not authorized by these regulations or subsequent LOA. During the course of the rule, Dominion Energy (and other LOA-holders conducting offshore wind development activities) would be required to participate in one or more adaptive management meetings convened by NMFS and/or BOEM, in which the above information would be summarized and discussed in the context of potential changes to the mitigation or monitoring measures.

Negligible Impact Analysis and Determination

NMFS has defined negligible impact as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.,* population-level effects). An estimate of the number of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be ''taken'' by mortality, serious injury, and Level A harassment or Level B harassment, we consider other factors, such as the likely nature of any behavioral responses (*e.g.,* intensity, duration), the context of any such responses (*e.g.,* critical reproductive time or location, migration) as well as effects on habitat and the likely effectiveness of mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS' implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the environmental baseline (*e.g.,* as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

In the Estimated Take section, we identified the subset of potential effects that would be expected to qualify as takes under the MMPA and then identified the total number of takes by Level A harassment and Level B harassment that we estimate are reasonably expected to occur based on the methods described. The impact that any given take would have is dependent on many case-specific factors that need to be considered in the negligible impact analysis (*e.g.,* the context of behavioral exposures such as duration or intensity of a disturbance, the health of impacted animals, the status of a species that incurs fitness-level impacts to individuals, *etc.*). In this rule, we evaluate the likely impacts of the enumerated harassment takes that are proposed for authorization in the context of the specific circumstances surrounding these estimated takes. We also collectively evaluate this information as well as other more taxa-specific information and mitigation measure effectiveness in group-specific discussions that support our negligible impact conclusions for each stock. As also described above, no serious injury or mortality is expected or proposed for authorization for any species or stock.

The Description of the Specified Activities section describes the specified activities proposed by Dominion Energy that may result in take of marine mammals and an estimated schedule for conducting those activities. Dominion Energy has provided a realistic construction schedule (*e.g.,* Dominion Energy's schedule reflects the maximum number of piles they anticipate to be able to drive each month in which pile driving is authorized to occur), although, we recognize schedules may shift for a variety of reasons (*e.g.,* weather or supply delays). However, the total number of take would not exceed the 5-year totals and maximum annual total in any given year indicated in Tables 27, 28, and 29, respectively.

We base our analysis and negligible impact determination (NID) on the total number of takes that would be reasonably expected to occur and are proposed to be authorized in the 5-year LOA, if issued, and extensive qualitative consideration of other contextual factors that influence the degree of impact of the takes on the affected individuals and the number and context of the individuals affected. As stated before, the number of takes, both annual and 5-year total, alone are only a part of the analysis. To avoid repetition, we provide some general analysis in this Negligible Impact Analysis and Determination section that applies to all the species listed in Table 7, given that some of the anticipated effects of Dominion Energy's construction

activities on marine mammals are expected to be relatively similar in nature. Then, we subdivide into more detailed discussions for mysticetes, odontocetes, and pinnipeds, which have broad life history traits that support an overarching discussion of some factors considered within the analysis for those groups (*e.g.,* habitat-use patterns, high-level differences in feeding strategies).

Last, we provide a negligible impact determination for each species or stock, providing species or stock-specific information or analysis, where appropriate, for example, for North Atlantic right whales given their population status. Organizing our analysis by grouping species or stocks that share common traits or that would respond similarly to effects of Dominion Energy's proposed activities and then providing species- or stock-specific information allows us to avoid duplication while ensuring that we have analyzed the effects of the specified activities on each affected species or stock. It is important to note that in the group or species sections, we base our negligible impact analysis on the maximum annual take that is predicted under the 5-year rule; however, the majority of the impacts are associated with installation of the WTG and OSS foundations, which would occur largely within a two year period. The estimated take in the other years is expected to be notably less, which is reflected in the total take that would be allowable under the rule (see Tables 27, 28, and 29).

As described previously, no serious injury or mortality is anticipated or proposed for authorization in this rule. The amount of harassment Dominion Energy has requested and NMFS is proposing to authorize is based on exposure models that consider the outputs of acoustic source and propagation models as well as consideration of other information such as group size and PSO data during previous HRG surveys. For all species, the amount of take proposed to be authorized represents the amount of Level A harassment and Level B harassment that could occur.

Behavioral Disturbance

In general, NMFS anticipates that impacts on an individual that has been harassed are likely to be more intense when exposed to higher received levels and for a longer duration (though this is in no way a strictly linear relationship for behavioral effects across species, individuals, or circumstances) and less severe impacts result when exposed to lower received levels and for a shorter duration. However, there is also growing evidence of the importance of contextual factors, such as distance from a source in predicting marine mammal behavioral response to sound—*i.e.,* sounds of a similar level emanating from a more distant source have been shown to be less likely to evoke a response of equal magnitude (*e.g.,* DeRuiter and Doukara, 2012; Falcone *et al.,* 2017). As described in the Potential Effects to Marine Mammals and their Habitat section, the intensity and duration of any impact resulting from exposure to Dominion Energy's activities is dependent upon a number of contextual factors including, but not limited to, sound source frequencies, whether the sound source is moving towards the animal, hearing ranges of marine mammals, behavioral state at time of exposure, status of individual exposed (*e.g.,* reproductive status, age class, health) and an individual's experience with similar sound sources. Ellison *et al.* (2012) and Moore and Barlow (2013), among others, emphasize the importance of context (*e.g.,* behavioral state of the animals, distance from the sound source) in evaluating behavioral responses of marine mammals to acoustic sources. Harassment of marine mammals may result in behavioral modifications (*e.g.,* avoidance, temporary cessation of foraging or communicating, changes in respiration or group dynamics, masking) or may result in auditory impacts such as hearing loss. In addition, some of the lower level physiological stress responses (*e.g.,* orientation or startle response, change in respiration, change in heart rate) discussed previously would likely co-occur with the behavioral modifications, although these physiological responses are more difficult to detect and fewer data exist relating these responses to specific received levels of sound. Takes by Level B harassment, then, may have a stress-related physiological component as well; however, we would not expect Dominion Energy's activities to produce conditions of long-term and continuous exposure to noise leading to long-term physiological stress responses in marine mammals that could affect reproduction or survival.

In the range of potential behavioral effects that might be expected to be part of a response that qualifies as an instance of Level B harassment by behavioral disturbance (which by nature of the way it is modeled/counted, occurs within one day), the less severe end might include exposure to comparatively lower levels of a sound, at a greater distance from the animal, for a few or several minutes. A less severe exposure of this nature could result in a behavioral response such as avoiding an area that an animal would otherwise have chosen to move through or feed in for some amount of time, or breaking off one or a few feeding bouts. More severe effects could occur if an animal gets close enough to the source to receive a comparatively higher level, is exposed continuously to one source for a longer time, or is exposed intermittently to different sources throughout a day. Such effects might result in an animal having a more severe flight response and leaving a larger area for a day or more or potentially losing feeding opportunities for a day. However, such severe behavioral effects are expected to occur infrequently.

Many species perform vital functions, such as feeding, resting, traveling, and socializing on a diel cycle (24-hour cycle). Behavioral reactions to noise exposure, when taking place in a biologically important context, such as disruption of critical life functions, displacement, or avoidance of important habitat, are more likely to be significant if they last more than one day or recur on subsequent days (Southall *et al.,* 2007) due to diel and lunar patterns in diving and foraging behaviors observed in many cetaceans (Baird *et al.,* 2008, Barlow *et al.,* 2020, Henderson *et al.,* 2016, Schorr *et al.,* 2014). It is important to note the water depth in the CVOW–C project area is generally shallow (less than 40 m) and deep diving species, such as sperm whales, are not expected to be engaging in deep foraging dives when exposed to noise above NMFS harassment thresholds during the specified activities. Therefore, we do not anticipate impacts to deep foraging behavior to be impacted by the specified activities.

It is also important to identify that the estimated number of takes does not necessarily equate to the number of individual animals Dominion Energy expects to harass (which is likely lower for some species) but rather, to the instances of take (*i.e.,* exposures above the Level B harassment thresholds) that are anticipated to occur. Some individuals of a species or stock may experience one exposure as they move through an area while other individuals of a species may experience recurring instances of take over multiple days throughout the year while some, which would mean (in the latter case) that the number of individuals taken is smaller than the total estimated instances of takes. In short, for species that are more likely to be migrating through the area and/or for which only a comparatively smaller number of takes are predicted (*e.g.,* some of the mysticetes), it is more likely that each take represents a

different individual whereas for non-migrating species with larger amounts of estimated take, we expect that the total anticipated takes represent exposures of a smaller number of individuals of which some would be exposed multiple times.

For the CVOW–C project, impact pile driving is likely to result in a higher magnitude and severity of behavioral disturbance than vibratory pile driving, HRG surveys, or other activities. Impact pile driving has higher source levels than vibratory pile driving and HRG sources. HRG survey equipment also produces much higher frequencies than pile driving, resulting in minimal sound propagation. While impact pile driving is anticipated to be most impactful for these reasons, impacts are minimized through implementation of mitigation measures, including soft-start, use of a sound attenuation system, and the implementation of clearance zones that would facilitate a delay of pile driving if marine mammals were observed approaching or within areas that could be ensonified above sound levels that could result in Level B harassment. Given sufficient notice through the use of soft-start, marine mammals are expected to move away from a sound source prior to becoming exposed to very loud noise levels. The requirement that pile driving can only commence when the full extent of all clearance zones are fully visible to visual PSOs would ensure a higher marine mammal detection, enabling a high rate of success in implementation of clearance zones. Furthermore, Dominion Energy would be required to utilize PAM to augment visual observations prior to and during all clearance periods, during impact pile driving, and after pile driving has ended during the post-piling period. PAM has been shown to be particularly effective when used in conjunction with visual observations, increasing the overall capability to detect marine mammals (Van Parijs *et al.,* 2021).

Occasional, milder behavioral reactions are unlikely to cause long-term consequences for individual animals or populations, and even if some smaller subset of the takes are in the form of a longer (several hours or a day) and more severe response, if they are not expected to be repeated over sequential days, impacts to individual fitness are not anticipated. Nearly all studies and experts agree that infrequent exposures of a single day or less are unlikely to impact an individual's overall energy budget (Farmer *et al.,* 2018; Harris *et al.,* 2017; King *et al.,* 2015; NAS 2017; New *et al.,* 2014; Southall *et al.,* 2007; Villegas-Amtmann *et al.,* 2015).

Temporary Threshold Shift

TTS is one form of Level B harassment that marine mammals may incur through exposure to Dominion Energy's activities and, as described earlier, the proposed takes by Level B harassment may represent takes in the form of behavioral disturbance, TTS, or both. As discussed in the Potential Effects to Marine Mammals and their Habitat section, in general, TTS can last from a few minutes to days, be of varying degree, and occur across different frequency bandwidths, all of which determine the severity of the impacts on the affected individual, which can range from minor to more severe. Impact and vibratory pile driving generate sounds in the lower frequency ranges (with most of the energy below 1–2 kHz, but with a small amount energy ranging up to 20 kHz); therefore, in general and all else being equal, we would anticipate the potential for TTS is higher in low-frequency cetaceans (*i.e.,* mysticetes) than other marine mammal hearing groups and would be more likely to occur in frequency bands in which they communicate. However, though the frequency range of TTS that marine mammals might sustain would overlap with some of the frequency ranges of their vocalizations, the frequency range of TTS from Dominion Energy's pile driving activities would not typically span the entire frequency range of one vocalization type, much less span all types of vocalizations or other critical auditory cues for any given species. Furthermore, the mitigation measures proposed by Dominion Energy and proposed by NMFS further reduce the potential for TTS in mysticetes.

Generally, both the degree of TTS and the duration of TTS would be greater if the marine mammal is exposed to a higher level of energy (which would occur when the peak dB level is higher or the duration is longer). The threshold for the onset of TTS was discussed previously (refer back to the Level B Harassment section in *Marine Mammal Acoustic Thresholds*). However, source level alone is not a predictor of TTS. An animal would have to approach closer to the source or remain in the vicinity of the sound source appreciably longer to increase the received SEL, which would be difficult considering the proposed mitigation and the nominal speed of the receiving animal relative to the stationary sources such as impact pile driving. The recovery time of TTS is also of importance when considering the potential impacts from TTS. In TTS laboratory studies (as discussed in the Potential Effects to Marine Mammals and their Habitat section), some using exposures of almost an hour in duration or up to 217 SEL, almost all individuals recovered within 1 day (or less, often in minutes) and we note that while the pile driving activities last for hours a day, it is unlikely that most marine mammals would stay in the close vicinity of the source long enough to incur more severe TTS. Overall, given the small number of times that any individual might incur TTS, the low degree of TTS and the short anticipated duration, and the unlikely scenario that any TTS overlapped the entirety of a critical hearing range, it is unlikely that TTS of the nature expected to result from Dominion Energy's activities would result in behavioral changes or other impacts that would impact any individual's (of any hearing sensitivity) reproduction or survival.

Permanent Threshold Shift

Dominion Energy has requested and NMFS proposed to authorize a very small amount of take by PTS to some marine mammal individuals. The maximum amount of Level A harassment proposed to be authorized is relatively low for all marine mammal stocks and species: humpback whales (4 takes), fin whales (4 takes), sei whales (1 take), minke whale (8 takes), harbor porpoises (1 take), gray seals (1 take), and harbor seals (1 take). The only activities we anticipate PTS may result from are exposure to impact pile driving foundation piles, an activity that produces sound that is both impulsive and primarily concentrated in the lower frequency ranges (below 1 kHz) (David, 2006; Krumpel *et al.,* 2021). Take by Level A harassment incidental to any other activity is not anticipated due to either the nature of the source (*e.g.,* HRG survey equipment) or the very small distances to Level A harassment isopleths (*e.g.,* the distance to PTS thresholds for vibratory driving large foundation piles is less than 158 m for all species).

There are no PTS data on cetaceans and only one instance of PTS being induced in an older harbor seals (Reichmuth *et al.,* 2019); however, available TTS data (of mid-frequency hearing specialists exposed to mid- or high-frequency sounds (Southall *et al.,* 2007; NMFS 2018; Southall *et al.,* 2019)) suggest that most threshold shifts occur in the frequency range of the source up to one octave higher than the source. We would anticipate a similar result for PTS. Further, no more than a small degree of PTS is expected to be associated with any of the incurred Level A harassment given it is unlikely that animals would stay in the close

vicinity of a source for a duration long enough to produce more than a small degree of PTS.

PTS would consist of minor degradation of hearing capabilities occurring predominantly at frequencies one-half to one octave above the frequency of the energy produced by pile driving (*i.e.,* the low-frequency region below 2 kHz) (Cody and Johnstone, 1981; McFadden, 1986; Finneran, 2015), not severe hearing impairment. If hearing impairment occurs from impact pile driving, it is most likely that the affected animal would lose a few decibels in its hearing sensitivity, which in most cases is not likely to meaningfully affect its ability to forage and communicate with conspecifics. However, given sufficient notice through use of soft-start prior to implementation of full hammer energy during impact pile driving, marine mammals are expected to move away from a sound source prior to it resulting in severe PTS.

Auditory Masking or Communication Impairment

The ultimate potential impacts of masking on an individual are similar to those discussed for TTS (*e.g.,* decreased ability to communicate, forage effectively, or detect predators), but an important difference is that masking only occurs during the time the animal is exposed to the signal, versus TTS, which continues beyond the duration of the signal. Also, though, masking can result from the sum of exposure to multiple signals, none of which might individually cause TTS. Fundamentally, masking is referred to as a chronic effect because one of the key potential harmful components of masking is its duration—the fact that an animal would have reduced ability to hear or interpret critical cues becomes much more likely to cause a problem the longer it is occurring. Also inherent in the concept of masking is the fact that the potential for the effect is only present during the times that the animal and the source are in close enough proximity for the effect to occur (and further, this time period would need to coincide with a time that the animal was utilizing sounds at the masked frequency). As our analysis has indicated, for this project we expect that pile driving foundations have the greatest potential to mask marine mammal signals, and this pile driving may occur for several, albeit intermittent, hours per day, given the need to switch between vibratory and impact hammers. Masking is fundamentally more of a concern at lower frequencies (which are pile driving dominant frequencies) because low frequency signals propagate significantly further than higher frequencies and because they are more likely to overlap both the narrower low frequency calls of mysticetes, as well as many non-communication cues related to fish and invertebrate prey, and geologic sounds that inform navigation. However, the area in which masking would occur for all marine mammal species and stocks (*e.g.,* predominantly in the vicinity of the foundation pile being driven) is small relative to the extent of habitat used by each species and stock. In summary, the nature of Dominion Energy's activities, paired with habitat use patterns by marine mammals, does not support the likelihood that the level of masking that could occur would have the potential to affect reproductive success or survival.

Impacts on Habitat and Prey

As previously discussed in the Potential Effects of Specified Activities to Marine Mammals and their Habitat section, construction activities may result in fish and invertebrate mortality or injury very close to the source, and all activities (including HRG surveys) may cause some fish to leave the area of disturbance. It is anticipated that any mortality or injury would be limited to a very small subset of available prey and the implementation of mitigation measures, such as the use of a noise attenuation system during impact pile driving of foundations, would further limit the degree of impact. Behavioral changes in prey in response to construction activities could temporarily impact marine mammals' foraging opportunities in a limited portion of the foraging range but because of the relatively small area of the habitat that may be affected at any given time (*e.g.,* around a pile being driven), the impacts to marine mammal habitat are not expected to cause significant or long-term negative consequences.

Cable presence and operation are not anticipated to impact marine mammal habitat as these would be buried, and any electromagnetic fields emanating from the cables are not anticipated to result in consequences that would impact marine mammals prey to the extent they would be unavailable for consumption.

The presence and operation of wind turbines within the Lease Area could have longer-term impacts on marine mammal habitat, as the project would result in the persistence of the structures within marine mammal habitat for more than 30 years. The presence and operation of an extensive number of structures, such as wind turbines, are, in general, likely to result in local and broader oceanographic effects in the marine environment and may disrupt dense aggregations and distribution of marine mammal zooplankton prey through altering the strength of tidal currents and associated fronts, changes in stratification, primary production, the degree of mixing, and stratification in the water column (Chen *et al.,* 2021, Johnson *et al.,* 2021, Christiansen *et al.,* 2022, Dorrell *et al.,* 2022). However, the scale of impacts is difficult to predict and may vary from hundreds of meters for local individual turbine impacts (Schultze *et al.,* 2020) to large-scale dipoles of surface elevation changes stretching hundreds of kilometers (Christiansen *et al.,* 2022).

As discussed in the Potential Effects to Marine Mammals and Their Habitat section, the CVOW–C proposed project would consist of no more than 176 WTGs (all of which are scheduled to be operational by the end of 2027) in Federal and state waters off of Virginia, an area dominated by physical oceanographic patterns of strong seasonal stratification (summer) and turbulence-driven mixing (winter), with a maximum of 183 piling events for all WTGs. While there are likely to be local oceanographic impacts from the presence and operation of the CVOW–C project area, meaningful oceanographic impacts relative to stratification and mixing that would significantly affect marine mammal habitat and prey over large areas in key habitats are not anticipated from the CVOW–C project. Although this area supports aggregations of zooplankton (baleen whale prey) that could be impacted if long-term oceanographic changes occurred, prey densities are typically significantly less in the CVOW–C project area than in known baleen whale foraging habitats to the northern areas off the New England coast (*e.g.,* south of Nantucket and Martha's Vineyard, Great South Channel). For these reasons, if oceanographic features are affected by wind farm operation during the course of the proposed rule (approximately end of Year 2 through Year 5), the impact on marine mammal habitat and their prey is likely to be comparatively minor.

Mitigation To Reduce Impacts on All Species

This proposed rulemaking includes a variety of mitigation measures designed to minimize impacts on all marine mammals, with a focus on North Atlantic right whales (the latter is described in more detail below). For the dual approach of vibratory and impact pile driving of foundation piles, nine

overarching mitigation measures are proposed, which are intended to reduce both the number and intensity of marine mammal takes: (1) seasonal/time of day work restrictions; (2) use of multiple PSOs to visually observe for marine mammals (with any detection within designated zones triggering delay or shutdown); (3) use of PAM to acoustically detect marine mammals, with a focus on detecting baleen whales (with any detection within designated zones triggering delay or shutdown); (4) implementation of clearance zones; (5) implementation of shutdown zones; (6) use of soft-start; (7) use of noise abatement technology; (8) maintaining situational awareness of marine mammal presence through various communication and network monitoring requirements; and (9) use of sound field verification. Several of these proposed mitigation measures are also applicable to other proposed activities (*e.g.,* use of PSOs and clearance and shutdown zones) while others are not considered viable for some activities (*e.g.,* PAM during non-foundation installation activities, use and seasonal/time of day work restrictions during HRG surveys; and use of soft-start during vibratory installation of cofferdams). These are discussed in more detail above in the relevant sections found in Proposed Mitigation Measures.

When foundation installation does occur, Dominion Energy is committed to reducing the noise levels generated by impact pile driving to the lowest levels practicable and ensuring that they do not exceed a noise footprint above that which was modeled assuming a 10-dB attenuation. Use of a soft-start would allow animals to move away from (*i.e.,* avoid) the sound source prior to applying higher hammer energy levels needed to install the pile (Dominion Energy would not use a hammer energy greater than necessary to install piles). Clearance zone and shutdown zone implementation, required when marine mammals are within given distances associated with certain impact thresholds, would reduce the magnitude and severity of marine mammal take.

Dominion Energy proposed, and NMFS proposed to require, use a noise attenuation device (likely a double big bubble curtain, another technology, or combination of technologies, such as a hydro-sound damper) during all foundation pile driving to ensure sound generated from the project does not exceed that modeled (assuming a 10-dB reduction) distances to harassment isopleths and to minimize noise levels to the lowest level practicable. Double big bubble curtains are successfully and widely applied across European wind development efforts, and are known to reduce noise levels more than a single big bubble curtain alone (*e.g.,* see Bellman *et al.,* 2020).

Mysticetes

Five mysticete species (comprising five stocks) of cetaceans (North Atlantic right whale, humpback whale, fin whale, sei whale, and minke whale) are proposed to be taken by harassment. These species, to varying extents, utilize coastal Virginia waters, including the project area, primarily for the purposes of migration. Key foraging grounds for most of these species are located hundreds of kilometers north of the project area off of southern New England, and will not be impacted by Dominion Energy's activities.

Behavioral data on mysticete reactions to pile driving noise is scant. Kraus *et al.* (2019) predicted that the three main impacts of offshore wind farms on marine mammals would consist of displacement, behavioral disruptions, and stress. Broadly, we can look to studies that have focused on other noise sources such as seismic surveys and military training exercises, which suggest that exposure to loud signals can result in avoidance of the sound source (or displacement if the activity continues for a longer duration in a place where individuals would otherwise have been staying, which is less likely for mysticetes in this area), disruption of foraging activities (if they are occurring in the area), local masking around the source, associated stress responses, and impacts to prey as well as TTS or PTS in some cases.

Mysticetes encountered in the CVOW–C project area are primarily expected to be migrating through the project area; the extent to which an animal engages in these behaviors in the area is species-specific and varies seasonally. Given that extensive feeding BIAs for the North Atlantic right whale, humpback whale, fin whale, sei whale, and minke whale are identified in area hundreds of kilometers north of the project area (LaBrecque *et al.,* 2015; Van Parijs *et al.,* 2015), many mysticetes are expected to predominantly be migrating through the project area towards or from these feeding habitats.

While we have acknowledged above that mortality, hearing impairment, or displacement of mysticete prey species may result locally from impact pile driving, the project area during which time impact pile driving of foundations may occur is not a known key foraging area. Impact pile driving foundations would not occur in winter when whales (*e.g.,* humpback whales) are more likely to be foraging within the project area. Primary mysticete foraging grounds (*i.e.,* much more suitable foraging habitat) are found much further north of the CVOW–C project area. Whales temporarily displaced from the proposed project area would be expected to have sufficient remaining habitat available to them and would not be prevented from migrating through other areas outside the CVOW–C project area. In addition, any displacement of whales or interruption of any potential foraging bouts that may occur sporadically during transit would be expected to be temporary in nature. Hence, any impacts on mysticetes foraging would be expected to be negligible.

The potential for repeated exposures is dependent upon the residency time of whales, with migratory animals unlikely to be exposed on repeated occasions and animals remaining in the area to be more likely exposed repeatedly. As is the case here, where relatively low amounts of species-specific proposed Level B harassment are predicted (Tables 27, 28, and 29) and movement patterns suggest that individuals would not necessarily linger in a particular area for multiple days, each estimated take likely represents an exposure of a different individual. The behavioral impacts to any given individual would, therefore, be expected to occur within a single day within a year—an amount that would not be expected to impact reproduction or survival. Alternatively, species with longer residence time in the project area may be subject to repeated exposures. In general, for this project, the duration of exposures would not be continuous throughout any given day and pile driving would not occur on all consecutive days within a given year due to weather delays, other planned activities in the construction schedule, and any number of logistical constraints that Dominion Energy has already identified. Given mysticete habitat use of waters off Virginia is predominately migratory in nature (reducing the likelihood of repeated exposures), we do not anticipate whales to experience repeated exposures, if it does occur, to the degree any meaningful consequence to reproduction or survival would occur. Species-specific analysis regarding potential for repeated exposures and impacts is provided below. Overall, we do not expect impacts to whales within the CVOW–C project area to affect the fitness of any large whales.

NMFS is proposing to authorize Level A harassment (in the form of PTS) of fin, minke, humpback, and sei whales incidental to installation of the WTG and OSS foundations. As described

previously, PTS for mysticetes from impact pile driving may overlap frequencies used for communication, navigation, or detecting prey. However, given the nature and duration of the activity, the mitigation measures, and likely avoidance behavior, any PTS is expected to be of a small degree, would be limited to frequencies where pile driving noise is concentrated (*i.e.,* only a small subset of their expected hearing range) and would not be expected to impact reproductive success or survival.

North Atlantic Right Whales

North Atlantic right whales are listed as endangered under the ESA and as described in the Effects to Marine Mammals and Their Habitat section, are threatened by a low population abundance, higher than average mortality rates, and lower than average reproductive rates. Recent studies have reported individuals showing high stress levels (*e.g.,* Corkeron *et al.,* 2017) and poor health, which has further implications on reproductive success and calf survival (Christiansen *et al.,* 2020; Stewart *et al.,* 2021; Stewart *et al.,* 2022). Given this, the status of the North Atlantic right whale population is of heightened concern and therefore, merits additional analysis and consideration.

North Atlantic right whales are presently experiencing an ongoing UME (beginning in June 2017). Preliminary findings support human interactions, specifically vessel strikes and entanglements, as the cause of death for the majority of North Atlantic right whales. Given the current status of the North Atlantic right whale, the loss of even one individual could significantly impact the population. No mortality, serious injury, or injury of North Atlantic right whales as a result of the project is expected or proposed to be authorized. Any disturbance to North Atlantic right whales due to Dominion Energy's activities is expected to result in temporary avoidance of the immediate area of construction. As no injury, serious injury, or mortality is expected or authorized, and Level B harassment of North Atlantic right whales will be reduced to the level of least practicable adverse impact through use of mitigation measures, the authorized number of takes of North Atlantic right whales would not exacerbate or compound the effects of the ongoing UME in any way.

NMFS proposes to authorize a maximum of 7 takes of North Atlantic right whales by Level B harassment only in any given year (primarily due to activities occurring in Years 1 and 2) with no more than 17 takes incidental to all construction activities over the 5-year period of effectiveness of this proposed rule.

As described above, the CVOW–C project area represents part of a migratory corridor that North Atlantic right whales use for transit between northern feeding grounds in New England and southern calving grounds off Georgia and Florida. Northward migration occurs mainly during the months of March and April while southern transit typically takes place during the months of November and December (LaBrecque *et al.,* 2015; Van Parijs *et al.,* 2015). Overall, the CVOW–C project area contains habitat less frequently utilized by North Atlantic right whales than the foraging and calving grounds. Salisbury *et al.* (2015) detected North Atlantic right whales year-round off the coast of Virginia, yet they were only detected on 10 percent of the days from May through October. The greatest detections occurred from October through December and February through March, outside of the months of Dominion Energy's planned foundation installation. Therefore, we anticipate that any individual whales would typically be migrating through the project area and would not be lingering for extended periods of time and, further, fewer would be present in the months when foundation installation would be occurring. Other proposed activities by Dominion Energy that involve either much smaller harassment zones (*i.e.,* HRG surveys) or are limited in amount and nearshore in location (*i.e.,* cable landfall construction) may occur during periods when North Atlantic right whales are more likely to be migrating through. However, North Atlantic right whales would be less likely to occur within the project area during the time when the most impactful project activities would take place.

As any North Atlantic right whales within the project area would likely be engaged in migratory behavior (LaBrecque *et al.,* 2015), it is likely that the estimated instances of take would occur to separate individual whales; however, some may be repeat takes of the same animal across multiple days for some short period of time. The only activity occurring from December through May that may impact North Atlantic right whale would be HRG surveys no take from cable landfall construction is anticipated or proposed to be authorized). Across all years, while it is possible an animal could have been exposed during a previous year, the low amount of take proposed to be authorized during the 5-year period of the proposed rule makes this scenario possible but unlikely. However, if an individual were to be exposed during a subsequent year, the impact of that exposure is likely independent of the previous exposure given the duration between exposures.

As described in the general *Mysticete* section above, installation of foundation piles by both impact and vibratory pile driving has the potential to result in the highest amount of annual take of North Atlantic right whales (7 Level B harassment takes) and is of greatest concern given the louder source levels present during impact pile driving. However, foundation installation would likely be limited to two years, during times when North Atlantic right whales are not present in high numbers and are likely to be primarily migrating to more northern foraging grounds. Furthermore, the potential types, severity, and magnitude of impacts are also anticipated to mirror that described in the general *Mysticete* section above, including avoidance (the most likely outcome), changes in foraging or vocalization behavior, masking, a small amount of TTS, and temporary physiological impacts (*e.g.,* change in respiration, change in heart rate). Importantly, the effects of the activities proposed by Dominion Energy are expected to be sufficiently low-level and localized to specific areas as to not meaningfully impact important behaviors such as migratory behavior of North Atlantic right whales.

As described above, no more than 7 takes of North Atlantic right whales would occur in any given year (likely in Year 1 or Year 2 if all foundations are installed according to the construction schedule provided by Dominion Energy) with no more than 17 takes occurring across the 5 years the proposed rule would be effective. If exposure results in temporary behavioral reactions, such as slight displacement (but not abandonment), it is unlikely to result in energetic consequences that could affect reproduction or survival of any individuals. Overall, NMFS expects that any harassment of North Atlantic right whales incidental to the specified activities would not result in meaningful changes to their migration patterns or disruption of foraging behavior as only temporary avoidance of an area during construction is expected to occur. As described previously, right whales migrating through these areas are not expected to remain in this habitat for extensive durations. Because of this, NMFS expects that any temporarily displaced animals would be able to return to or continue to travel through these areas once Dominion

Energy's proposed construction activities have ceased.

Although acoustic masking may occur, based on the acoustic characteristics of noise associated with pile driving (*e.g.,* frequency spectra, short duration of exposure) and construction surveys (*e.g.,* intermittent signals), NMFS expects masking effects to be minimal (*e.g.,* impact or vibratory pile driving) to none (*e.g.,* HRG surveys). In addition, masking would likely only occur during the period of time that a North Atlantic right whale is in the relatively close vicinity of pile driving, which is expected to be infrequent and brief given time of year restrictions, anticipated mitigation effectiveness, and likely avoidance behaviors. TTS is another potential form of Level B harassment that could result in brief periods of slightly reduced hearing sensitivity affecting behavioral patterns by making it more difficult to hear or interpret acoustic cues within the frequency range (and slightly above) of sound produced during impact pile driving. However, any TTS would likely be of low amount and limited to frequencies where most construction noise is centered (below 2 kHz). NMFS expects that right whale hearing sensitivity would return to pre-exposure levels shortly after migrating through the area or moving away from the sound source.

As described in the Potential Effects to Marine Mammals and Their Habitat section, the distance of the receiver to the source influences the severity of response with greater distances typically eliciting less severe responses. Additionally, NMFS recognizes North Atlantic right whales migrating could be pregnant females (in the fall) and cows with older calves (in spring) and that these animals may slightly alter their migration course in response to any foundation pile driving. However, as described in the Potential Effects to Marine Mammals and Their Habitat section, we anticipate that course diversion would be of small magnitude. Hence, while some avoidance of the pile driving activities may occur, we anticipate any avoidance behavior of migratory right whales would be similar to that of gray whales (Tyack *et al.,* 1983), on the order of hundreds of meters up to 1 to 2 km. This slight diversion from an otherwise uninterrupted path is neither anticipated to push North Atlantic right whales out of their migratory habitat nor expected to result in meaningful energetic costs that would impact annual rates of recruitment of survival. NMFS expects that North Atlantic right whales would be able to avoid areas during periods of active noise production while not being forced out of this portion of their habitat.

Dominion Energy has proposed, and NMFS is proposing to require, a suite of enhanced mitigation measures designed to reduce impacts to North Atlantic right whales to the maximum extent practicable. These mitigation measures are fully described in the Proposed Mitigation section above and are designed to minimize the amount and severity of Level B harassment (TTS and behavioral disruptions) by minimizing the potential for exposure and, if exposures do occur, the noise levels and duration associated with those exposures. Implementation of these measures further ensure that takes by Level B harassment proposed to be authorized would not be expected to affect reproductive success or survivorship of species during migratory transit.

As described in the Description of Marine Mammals in the Area of Specified Activities section, the proposed CVOW–C project would be constructed within the North Atlantic right whale migratory corridor BIA, which represent areas and months within which a substantial portion of a species or population is known to migrate. Off the coast of Virginia, this BIA extends from the coast to beyond the shelf break. The CVOW–C Lease Area is relatively small compared with the migratory BIA area (approximately 456.5 km^2 versus the size of the full North Atlantic right whale migratory BIA, 269,448 km^2). Because of this and for reasons described above, overall North Atlantic right whale migration is not expected to be impacted by the proposed activities. There are no known North Atlantic right whale mating or calving areas within the project area. Impact pile driving, which is responsible for the majority of North Atlantic right whale impacts from the CVOW–C project, would be limited to a maximum of approximately 9 intermittent hours per day (inclusive of a maximum daily built-out of two intermittent 4-hour pile driving events and the 1.2 hour transition time between vibratory equipment to impact); therefore, if migratory activities are disrupted due to foundation pile driving, any disruption would be brief as North Atlantic right whales would likely resume migrating after pile driving ceases or when animals move away from the sound source to another nearby location. The Chesapeake Bay SMA, a management tool designed to reduce vessel strikes, also temporally and spatially overlaps a small portion of the project area for a portion of the year. Given the vessel speed regulations and other enhanced measures within this proposed rule, vessel strike of a North Atlantic right whale is not anticipated and no take, by mortality, serious injury, or non-auditory injury (potential outcomes of a vessel strike) is proposed for authorization.

The primary prey species for the North Atlantic right whale are mobile (*e.g.,* calanoid copepods can initiate rapid and directed escape responses) and are broadly distributed much further north from the CVOW–C project area (noting again that North Atlantic right whale prey is not particularly concentrated in the CVOW–C project area relative to nearby habitats). Therefore, any impacts to prey that may occur are also unlikely to impact marine mammals.

The most significant measure to minimize impacts to individual North Atlantic right whales during monopile installations is the seasonal moratorium on impact pile driving of monopiles from November 1st through April 30th when North Atlantic right whale abundance in the project area is expected to be highest for the proposed construction period. NMFS also expects this measure to greatly reduce the potential for mother-calf pairs to be exposed to foundation pile driving noise above the Level B harassment threshold during their annual spring migration through the CVOW–C project area from southern calving grounds to the foraging grounds in southern New England and north. Further, NMFS expects that exposures to North Atlantic right whales would be reduced due to the additional proposed mitigation measures that would ensure that any exposures above the Level B harassment threshold would result in only short-term effects to individuals exposed. Impact pile driving may only begin in the absence of North Atlantic right whales (based on visual and passive acoustic monitoring). If impact pile driving has commenced, NMFS anticipates North Atlantic right whales would avoid the area, utilizing nearby waters to carry on pre-exposure behaviors. However, NMFS proposes to require that impact pile driving must be shut down if a North Atlantic right whale is sighted at any distance unless a shutdown is not feasible due to risk of injury or loss of life, pile refusal, or pile instability. Shutdown may occur anywhere if right whales are seen within or beyond the Level B harassment zone, further minimizing the duration and intensity of exposure. NMFS anticipates that if North Atlantic right whales go undetected and they are exposed to impact pile driving noise, it is unlikely a North Atlantic right whale

would approach the impact pile driving locations to the degree that they would purposely expose themselves to very high noise levels. These measures are designed to avoid PTS and also reduce the severity of Level B harassment, including the potential for TTS. While some TTS could occur, given the proposed mitigation measures (*e.g.,* delay pile driving upon a sighting or acoustic detection and shutting down upon a sighting or acoustic detection), the potential for TTS to occur is low.

The proposed clearance and shutdown measures are most effective when detection efficiency is maximized, as the measures are triggered by a sighting or acoustic detection. To maximize detection efficiency, Dominion Energy proposed, and NMFS is proposing to require the combination of PAM and visual observers (as well as communication protocols with other Dominion Energy vessels, and other heightened awareness efforts such as daily monitoring of North Atlantic right whale sighting databases) such that as a North Atlantic right whale approaches the source (and thereby could be exposed to higher noise energy levels), PSO detection efficacy would increase, the whale would be detected, and a delay to commencing pile driving or shutdown (if feasible) would occur. In addition, the implementation of a soft start would provide an opportunity for whales to move away from the source if they are undetected, reducing received levels. Further, Dominion Energy has committed to not installing two WTG or OSS foundations simultaneously. North Atlantic right whales would, therefore, not be exposed to concurrent impact pile driving on any given day and the area ensonified at any given time would be limited. We further note that Dominion Energy has not requested to install foundation piles at night, which is likely to further improve the ability of observers to spot and identify any approach or transiting North Atlantic right whales.

Dominion Energy anticipates a need to undertake a dual vibratory and impact pile driving approach for foundation piles to avoid risks associated with pile run due to softer sedimentation in the CVOW–C project area. While Dominion Energy expects that up to 70 percent of their piles may necessitate this joint approach (approximately 123 foundation piles), realistically not all piles would be at risk of pile run and would be installed by impact pile driving. However, as a conservative approach given uncertainty with the seabed conditions for the location of each pile, Dominion Energy assumed all foundation piles would undertake this approach. Furthermore, Dominion Energy has already stated that no concurrent installation of foundation piles is planned to occur, no concurrent vibratory and impact driving is expected to occur either as a 1.2 hour gap between the end vibratory driving to the start of impact pile driving (to allow for the moving and set-up of equipment) would treat each installation approach as a separate event and would not overlap.

Finally, for HRG surveys, the maximum distance to the Level B harassment isopleth is 100 m. The estimated take, by Level B harassment only, associated with HRG surveys is to account for any North Atlantic right whale sightings PSOs may miss when HRG acoustic sources are active. However, because of the short maximum distance to the Level B harassment isopleth (100 m via the GeoMarine Dual 400 Sparker 800 J), the requirement that vessels maintain a distance of 500 m from any North Atlantic right whales, the fact whales are unlikely to remain in close proximity to an HRG survey vessel for any length of time, and that the acoustic source would be shutdown if a North Atlantic right whale is observed within 500 m of the source, any exposure to noise levels above the harassment threshold (if any) would be very brief and at comparatively low received levels. To further minimize exposures, ramp-up of boomers, sparkers, and CHIRPs must be delayed during the clearance period if PSOs detect a North Atlantic right whale (or any other ESA-listed species) within 500 m of the acoustic source. Potential impacts associated with Level B harassment would include low-level, temporary behavioral modifications, most likely in the form of brief avoidance behavior that would return to baseline conditions once the vessel leaves the area. Given the high level of precautions taken to minimize both the amount and intensity of Level B harassment on North Atlantic right whales, it is unlikely that the anticipated low-level exposures would lead to reduced reproductive success or survival of any individuals.

North Atlantic right whales are listed as endangered under the ESA with a declining population primarily due to vessel strike and entanglement. Again, NMFS is proposing to authorize no more than 17 instances of take, by Level B harassment only, within the a given year with no more than 7 instances of take could occur over the 5-year effective period of the proposed rule, with the likely scenario that each instance of exposure occurs to a different individual (a small portion of the stock), and any individual North Atlantic right whale is likely to be disturbed at a low level. The low magnitude and severity of harassment are not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality, serious injury, or Level A harassment is anticipated or proposed to be authorized. For these reasons, we have preliminarily determined, in consideration of all of the effects of Dominion Energy's activities combined, that the proposed authorized take would have a negligible impact on the Western North Atlantic stock of North Atlantic right whales.

Humpback Whales

Humpback whales potentially impacted by Dominion Energy's activities do not belong to a DPS that is listed as threatened or endangered under the ESA. However, humpback whales along the Atlantic Coast have been experiencing an active UME as elevated humpback whale mortalities have occurred along the Atlantic coast from Maine through Florida since January 2016. Of the cases examined, approximately half had evidence of human interaction (ship strike or entanglement). The UME does not yet provide cause for concern regarding population-level impacts, and take from ship strike and entanglement is not proposed to be authorized. Despite the UME, the relevant population of humpback whales (the West Indies breeding population, or DPS of which the Gulf of Maine stock is a part) remains stable at approximately 12,000 individuals.

Dominion Energy has requested, and NMFS has proposed to authorize incidental take by Level A harassment (n=8) and Level B harassment (n=242) over the five-year effective period of the rule, with no more than 4 takes by Level A harassment and 130 takes by Level B harassment in any year (likely year one or two, with fewer anticipated in other years). No mortality or serious injury is anticipated or proposed for authorization. Among the activities analyzed, impact pile driving has the potential to result in the highest amount of annual take of humpback whales and is of greatest concern, given the associated louder source levels. As mentioned earlier, humpback whales are generally migratory in Virginia waters, although the mid-Atlantic region may also serve as a supplemental winter feeding ground for juvenile and mature male humpback whales (Mallette *et al.,* 2017; Barco *et al.,* 2002; LaBrecque *et*

al., 2015). Although there is limited information about the specific migratory path, humpback whale migration may take place in the open ocean or on the continental shelf of the mid-Atlantic region (Barco *et al.,* 2002; LaBrecque *et al.,* 2015), thus, potentially overlapping with the project area during the spring or fall. Juvenile and adult male humpback whales may utilize Virginia waters as a feeding ground during the winter months (December–March) (Barco *et al., 2*002), however this habitat is anticipated to be used less frequently than the northern summer feeding grounds. The most impactful project activities are planned to occur from May through October, outside of the time when humpback whales are expected to be migrating through the area or using Virginia waters as a feeding ground. Humpback whales would therefore be less likely to occur during the time when the most impactful project activities would take place.

The 130 maximum annual instances of estimated take by Level B harassment would likely consist of individuals exposed to noise levels above the harassment thresholds once during migration through the CVOW–C project area and/or individuals exposed on multiple days if they are utilizing the area as foraging habitat. Based on the observed winter peaks in humpback whale seasonal distribution in the Virginia region, it is likely that these individuals would primarily be exposed to HRG survey activities given there is no time of year restriction for this activity. The proposed pile driving restrictions for foundation installation and cable landfall activities are designed around North Atlantic right whales; however, this seasonal restriction also affords protection to humpback whales utilizing the waters off of Virginia during the winter months.

For all the reasons described in the *Mysticete* section above, we anticipate any potential PTS or TTS occurring in humpback whales would be small (limited to a few dB) and concentrated at half or one octave above the frequency band of pile driving noise (most sound is below 2 kHz) which does not include the full predicted hearing range of baleen whales. If TTS is incurred, hearing sensitivity would likely return to pre-exposure levels shortly after exposure ends. Any masking or physiological responses would also be of low magnitude and severity for reasons described above.

Altogether, the low magnitude and severity of harassment effects is not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality or serious injury is anticipated or proposed to be authorized. For these reasons, we have preliminarily determined, in consideration of all of the effects of Dominion Energy's activities combined, that the proposed authorized take would have a negligible impact on the Gulf of Maine stock of humpback whales.

Fin Whales

The western North Atlantic stock of fin whales is listed as endangered under the ESA. The amount of incidental take of fin whales proposed for authorization in any year is 4 by Level A harassment and 113 by Level B harassment. The 5-year total amount of fin whale take proposed for authorization is 7 by Level A harassment and 208 by Level B harassment with the majority of take occurring in the first two years of the proposed authorization. The amount of take proposed for authorization is low relative to the population abundance. No serious injury or mortality is anticipated or proposed for authorization. Any Level B harassment is expected to be in the form of behavioral disturbance, primarily resulting in avoidance of the Project Area where pile driving and HRG surveys are occurring, and some low-level TTS and masking that may limit the detection of acoustic cues for relatively brief periods of time. Any potential PTS or TTS would be small (limited to a few dB) and concentrated at half or one octave above the frequency band of pile driving noise (most sound is below 2 kHz) which does not include the full predicted hearing range of fin whales. As described previously, there are no known areas of biological importance in or adjacent to the project area, the closest fin whale BIA (located east of Montauk Point, New York) is hundreds of kilometers away.

Because of the relatively low magnitude and severity of take proposed for authorization, the fact that no serious injury or mortality is anticipated, the temporary nature of the disturbance, and the availability of similar habitat and resources in the surrounding area, NMFS has preliminarily determined that the impacts of Dominion Energy's activities on fin whales are not expected to cause significant impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock.

Sei Whales

The Nova Scotia stock of sei whales are listed under the ESA. There are no known areas of specific biological importance in or around the project area, nor are there any UMEs for this species. The actual abundance of each stock is likely significantly greater than what is reflected in each draft and final SAR because, as noted in the SARs, the most recent population estimates are primarily based on surveys conducted in U.S. waters and the stock's range extends well beyond the U.S. EEZ.

The maximum annual amount of incidental take of sei whales proposed for authorization in any year is 1 by Level A harassment and 3 by Level B harassment. The number of takes proposed to be authorized in the last three years of the rule is notably less and the 5-year total amount of sei whale take proposed for authorization is 2 by Level A harassment and 8 by Level B harassment. The amount of take proposed for authorization is low in the context of the population abundance. No serious injury or mortality is anticipated or proposed for authorization. Similar to other mysticetes, we would anticipate the number of takes to represent individuals taken only once or, in rare cases, an individual taken a very small number of times as most whales in the project area would be migrating. To a small degree, sei whales may forage in the project area, although the currently identified foraging habitats (BIAs) are found much further north of the area in which Dominion Energy's activities would occur (LaBrecque *et al.,* 2015). With respect to the severity of those individual takes by behavioral Level B harassment, we would anticipate impacts to be limited to low-level, temporary behavioral responses with avoidance and potential masking impacts in the vicinity of the turbine installation to be the most likely type of response. Any potential PTS or TTS would be small (limited to a few dB) and concentrated at half or one octave above the frequency band of pile driving noise (most sound is below 2 kHz) which does not include the full predicted hearing range of sei whales. Any avoidance of the project area due to Dominion Energy's activities would be expected to be temporary.

Overall, the take by harassment proposed for authorization is of a low magnitude and severity and is not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality or serious

injury is anticipated or proposed to be authorized. For these reasons, we have preliminarily determined, in consideration of all of the effects of Dominion Energy's activities combined, that the proposed authorized take would have a negligible impact on the Nova Scotia sei whale stock.

Minke Whales

The Canadian East Coast stock of minke whales is not listed under the ESA. There are no known areas of specific biological importance in or around the project area off of Virginia. Beginning in January 2017, elevated minke whale strandings have occurred along the Atlantic coast from Maine through South Carolina, with highest numbers in Massachusetts, Maine, and New York. This event does not provide cause for concern regarding population level impacts, as the likely population abundance is greater than 21,000 whales. No mortality or serious injury of this stock is anticipated or proposed for authorization.

The maximum annual amount of incidental take of minke whales proposed for authorization in any year is 8 by Level A harassment and 56 by Level B harassment. The number of takes proposed to be authorized in the last three years of the rule is notably less (refer back to Table 27) and the 5-year total amount of minke whale take proposed for authorization is 15 by Level A harassment and 116 by Level B harassment. The amount of take proposed for authorization is low in the context of the population abundance. No serious injury or mortality is anticipated or proposed for authorization.

We anticipate the impacts of this harassment to follow those described in the general *Mysticete* section above. In summary, Level B harassment would be temporary, with primary impacts being temporary displacement of the project area but not abandonment of any migratory or foraging behavior. Overall, the amount of take proposed to be authorized is small and the low magnitude and severity of harassment effects is not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality or serious injury is anticipated or proposed to be authorized. Any potential PTS or TTS would be small (limited to a few dB) and concentrated at half or one octave above the frequency band of pile driving noise (most sound is below 2 kHz) which does not include the full predicted hearing range of minke whales. For these reasons, we have preliminarily determined, in consideration of all of the effects of Dominion Energy's activities combined, that the proposed authorized take would have a negligible impact on the Canadian East Coast stock of minke whales.

Odontocetes

In this section, we include information here that applies to all of the odontocete species and stocks addressed below, which are further divided into the following subsections: sperm whales, delphinids and pilot whales, and harbor porpoises. These sub-sections include more specific information, as well as conclusions for each stock represented.

The majority of takes by harassment of odontocetes incidental to Dominion Energy's specified activities are by Level B harassment incidental to pile driving and HRG surveys. We anticipate that, given ranges of individuals (*i.e.,* that some individuals remain within a smaller area for some period of time), and non-migratory nature of some odontocetes in general (especially as compared to mysticetes), these takes are more likely to represent multiple exposures of a smaller number of individuals than is the case for mysticetes, though some takes may also represent one-time exposures to an individual.

Pile driving, particularly vibratory and impact pile driving of WTG and OSS foundation piles, has the potential to disturb odontocetes to the greatest extent, compared to HRG surveys and nearshore cable landfall activities (*i.e.,* temporary cofferdams and goal posts). While we do expect animals to avoid the area during pile driving, their habitat range is relatively extensive compared to the area ensonified during pile driving.

As described earlier, Level B harassment may manifest as changes to behavior (*e.g.,* avoidance, changes in vocalizations (from masking) or foraging), physiological responses, or TTS. Odontocetes are highly mobile species and, similar to mysticetes, NMFS expects any avoidance behavior to be limited to the area near the pile being driven. While masking could occur during pile driving, it would only occur in the vicinity of and during the duration of the pile driving, and would not generally occur in a frequency range that overlaps most odontocete communication or echolocation signals. The mitigation measures (*e.g.,* use of sound abatement systems, implementation of clearance and shutdown zones) would also minimize received levels such that the severity of any behavioral response would be expected to be less than exposure to unmitigated noise exposure.

Any masking or TTS effects are anticipated to be of low-severity. First, the frequency range of pile driving, the most impactful activity conducted by Dominion Energy in terms of response severity, falls within a portion of the frequency range of most odontocete vocalizations. However, odontocete vocalizations span a much wider range than the low frequency construction activities proposed by Dominion Energy. Further, as described above, recent studies suggest odontocetes have a mechanism to self-mitigate (*i.e.,* reduce hearing sensitivity) the impacts of noise exposure, which could potentially reduce TTS impacts (Nachtigall and Supin, 2013; Finneran, 2018). Any masking or TTS is anticipated to be limited and would typically only interfere with communication within a portion of an odontocete's range and as discussed earlier, the effects would only be expected to be of a short duration and, for TTS, a relatively small degree. Furthermore, odontocete echolocation occurs predominantly at frequencies significantly higher than low frequency construction activities; therefore, there is little likelihood that threshold shift specifically, either temporary or permanent, would interfere with feeding behaviors (noting that take by Level A harassment (PTS) is proposed for only harbor porpoises (n=2)). For HRG surveys, the sources operate at higher frequencies than pile driving; however, sounds from these sources attenuate very quickly in the water column, as described above, and many of the sources are downward directed; therefore, the potential for TTS and masking is very limited. Further, odontocetes (*e.g.,* common dolphins, spotted dolphins, bottlenose dolphins) have demonstrated an affinity to bow-ride actively surveying HRG surveys; therefore, the severity of any harassment, if it does occur, is anticipated to be minimal based on the lack of avoidance previously demonstrated by these species.

The waters off the coast of Virginia are used by several odontocete species; however, none (except the sperm whale) are listed under the ESA and there are no known habitats of particular importance in the vicinity of the project. In general, odontocete habitat ranges are far-reaching along the Atlantic coast of the U.S. and the waters off of Virginia and within the continental slope, including the project area, do not contain any particularly unique odontocete habitat features.

Sperm Whales

The Western North Atlantic stock of sperm whales spans the East Coast out into oceanic waters well beyond the U.S. EEZ. Although listed as endangered, the primary threat faced by the sperm whale (*i.e.,* commercial whaling) has been eliminated and, further, sperm whales in the western North Atlantic were little affected by modern whaling (Taylor *et al.,* 2008). Current potential threats to the species globally include vessel strikes, entanglement in fishing gear, anthropogenic noise, exposure to contaminants, climate change, and marine debris. There is no currently reported trend for the stock and, although the species is listed as endangered under the ESA, there are no specific issues with the status of the stock that cause particular concern (*e.g.,* no UMEs). There are no known areas of biological importance (*e.g.,* critical habitat or BIAs) in or near the project area.

No mortality, serious injury or Level A harassment is anticipated or proposed to be authorized for this species. Impacts would be limited to Level B harassment and would occur to only a very small number of individuals (maximum of 3 in any given year and six total across all 5-years of the proposed project) incidental to pile driving associated with foundation installation and HRG surveys. Sperm whales are not common within the project area due to the shallow waters, and it is not expected that any noise levels would reach habitat in which sperm whales are common, including deep-water foraging habitat. If sperm whales do happen to be present in the project area during any activities related to the CVOW–C project, they would likely be only transient visitors and not engaging in any significant behaviors. This very low magnitude and severity of effects is not expected to result in impacts on the reproduction or survival of individuals, much less impact annual rates of recruitment or survival. For these reasons, we have determined, in consideration of all of the effects of Dominion Energy's activities combined, that the take proposed to be authorized would have a negligible impact on sperm whales.

Dolphins and Small Whales (Inclusive of Delphinid Species, False Killer Whale, Melon-Headed Whale, Pygmy Sperm Whale, and Pilot Whales)

None of the delphinids or small whale species for which take has been proposed for authorization are listed as endangered in the ESA. Across these species, the maximum amount of incidental take, by Level B harassment only, proposed for authorization in any one year ranges between 1 (pygmy sperm whale) and 7,360 (for both Atlantic spotted dolphins and common dolphins). The number of takes proposed to be authorized in the last three years of the rule is notably less and the 5-year total amount of take (by Level B harassment only) proposed for authorization ranges between 2 (pygmy sperm whale) and 26,764 (Atlantic spotted dolphin) No mortality, serious injury, or Level A harassment is anticipated or proposed to be authorized for any delphinid or small whale. There are no recent UMEs, specific areas of known biological importance, or other specific issues related to the status of odontocete stocks that cause particular concern. Further, though the estimated numbers of take are comparatively higher than the numbers for mysticetes, we note that for all species they are relatively low relative to the population abundance.

As described above for odontocetes broadly, given the comparatively higher amount of estimated takes for some species and the behavioral patterns of odontocetes, we anticipate that a fair number of these instances of take in a day represent multiple exposures of a smaller number of individuals, meaning the actual number of individuals taken is lower. Although some amount of repeated exposure to some individuals is likely given the duration of activity proposed by Dominion Energy, the intensity of any Level B harassment combined with the availability of alternate nearby foraging habitat suggests that the likely impacts would not impact the reproduction or survival of any individuals.

Overall, the populations of all delphinid and small whale species and stocks for which we propose to authorize take are stable (no declining population trends), not facing existing UMEs, and the relatively low magnitude and severity of effects is not expected to result in impacts on the reproduction or survival of any individuals, much less affect annual rates of recruitment or survival. No mortality, serious injury or Level A harassment is anticipated or proposed to be authorized for any of these species. For these reasons, we have preliminarily determined, in consideration of all of the effects of Dominion Energy's activities combined, that the take proposed to be authorized would have a negligible impact on all delphinid and small whale species and stocks considered in this analysis.

Harbor Porpoises

The Gulf of Maine/Bay of Fundy stock of harbor porpoises is found predominantly in northern U.S. coastal waters (less than 150 m depth) and up into Canada's Bay of Fundy. This stock of harbor porpoise is not listed as endangered under the ESA. The maximum amount of incidental take of harbor porpoises proposed for authorization in any year is 1 by Level A harassment and 40 by Level B harassment. The number of takes proposed to be authorized in the last three years of the rule is notably less and the 5-year total amount of harbor porpoise take proposed for authorization is 2 by Level A harassment and 141 by Level B harassment. The amount of take proposed for authorization is low in the context of the population abundance. No serious injury or mortality is anticipated or proposed for authorization. Although the population trend is not known, there are no UMEs, known areas of biological importance, or other factors that specifically cause concern for this stock. No mortality or non-auditory injury by WTG and OSS foundation installation, or due to any other activities planned by Dominion Energy, are anticipated or authorized for this stock.

Regarding the severity of takes by behavioral Level B harassment, because harbor porpoises are particularly sensitive to noise, it is likely that a fair number of the responses could be of a more moderate nature, particularly to pile driving. In response to pile driving, harbor porpoises are likely to avoid the area during construction, as previously demonstrated in Tougaard *et al.* (2009) in Denmark, in Dahne *et al.* (2013) in Germany, and in Vallejo *et al.* (2017) in the United Kingdom, although a study by Graham *et al.* (2019) may indicate that the avoidance distance could decrease over time. However, pile driving is primarily scheduled to occur when harbor porpoise abundance is low off the coast of Virginia (based on the density values (0.00000) presented for both summer (June to August) and fall (September to October)) and, given alternative foraging areas, any avoidance of the area by individuals is not likely to impact the reproduction or survival of any individuals. Given a maximum of two monopile foundations for WTGs would be installed on any given day, any behavioral responses would be expected to be of relatively short duration.

With respect to PTS and TTS, the effects on an individual are likely relatively low given the frequency bands

of pile driving (most energy below 2 kHz) compared to harbor porpoise hearing (150 Hz to 160 kHz peaking around 40 kHz). Specifically, PTS or TTS is unlikely to impact hearing ability in their more sensitive hearing ranges, or the frequencies in which they communicate and echolocate. Regardless, we have authorized a limited amount of PTS for harbor porpoises (n=2), but expect any PTS that may occur to be within the very low end of their hearing range where harbor porpoises are not particularly sensitive, and any PTS would be of small magnitude. As such, any PTS would not interfere with echolocation or communication frequencies important for foraging or reproduction.

No mortality or serious injury of harbor porpoise is anticipated or proposed to be authorized. While harbor porpoises are likely to avoid the area during any construction activity discussed herein, as demonstrated during the construction of European wind farms, the time of year in which work would occur is when harbor porpoises are not in high abundance, and any work that does occur would not be expected to result in the species' abandonment of the waters off of Virginia. The low magnitude and low to moderate severity of harassment effects is not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality or serious injury is anticipated or proposed to be authorized. For these reasons, we have preliminarily determined, in consideration of all of the effects of Dominion Energy's activities combined, that the proposed authorized take would have a negligible impact on the Gulf of Maine/Bay of Fundy stock of harbor porpoises.

Pinnipeds (Harbor and Gray Seals)

Neither the harbor seal nor gray seal are listed as endangered under the ESA. The maximum amount of incidental take proposed for authorization in any year is 1 by Level A harassment and 83 by Level B harassment for each seal species. The number of takes proposed to be authorized in the last three years of the rule is notably less than this. Further, the 5-year total number of take of each seal species proposed for authorization is 2 by Level A harassment and 218 by Level B harassment. The amount of take proposed for authorization is low relative to the population abundance. No serious injury or mortality is anticipated or proposed for authorization. We expect that the majority of takes of these two species is from the vibratory and impact installation of WTG monopile and OSS jacket foundations. Any takes by Level B harassment are expected to be in the form of behavioral disturbance, primarily due to temporary avoidance of the Project Area during pile driving and HRG survey activities. Some low-level TTS and masking may occur and may limit the detection of acoustic cues for relatively brief periods of time. As described previously for other species, any potential TTS or PTS would be small and limited to a few dB. There are no known haul-out locations or other areas of importance in or adjacent to the Project Area for either harbor or gray seals.

These pinniped species occur in Virginia waters in relatively low numbers in the summer (0.00001; June to August) and fall (0.00047; September to October), as compared to the spring density (0.01828; May). Given foundation installation would occur during months primarily when pinniped densities are lower, we expect impacts to animals to be minimal. Seals are also more likely to be close to shore such that exposure to impact pile driving would be expected to be at lower levels generally (but still above NMFS behavioral harassment threshold). Research and observations show that pinnipeds in the water may be tolerant of anthropogenic noise and activity (a review of behavioral reactions by pinnipeds to impulsive and non-impulsive noise can be found in Richardson *et al.* (1995) and Southall *et al.* (2007)). Available data, though limited, suggest that exposures between approximately 90 and 140 dB SPL do not appear to induce strong behavioral responses in pinnipeds exposed to non-pulse sounds in water (Costa *et al.,* 2003; Jacobs and Terhune, 2002; Kastelein *et al.,* 2006c). Although there was no significant displacement during construction as a whole, Russell *et al.* (2016) found that displacement did occur during active pile driving at predicted received levels between 168 and 178 dB re 1μPa$_{(p\text{-}p)}$; however seal distribution returned to the pre-piling condition within two hours of cessation of pile driving. Pinnipeds may not react at all until the sound source is approaching (or they approach the sound source) within a few hundred meters and then may alert, ignore the stimulus, change their behaviors, or avoid the immediate area by swimming away or diving.

Effects on pinnipeds that are taken by Level B harassment in the CVOW–C project area would likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring). Most likely, individuals would simply move away from the sound source and be temporarily displaced from those areas (see Lucke *et al.,* 2006; Edren *et al.,* 2010; Skeate *et al.,* 2012; Russell *et al.,* 2016). Given their comparatively greater documented tolerance of anthropogenic sound (Richardson *et al.,* 1995; Southall *et al.,* 2007), repeated exposures of individuals of either of these species to levels of sound that may cause Level B harassment are unlikely to significantly disrupt foraging behavior. Given the low anticipated magnitude of impacts from any given exposure, even repeated Level B harassment across a few days of some small subset of individuals, which could occur, is unlikely to result in impacts on the reproduction or survival of any individuals. Moreover, pinnipeds would benefit from the mitigation measures described in the Proposed Mitigation section.

As described above, noise from impact pile driving is low frequency and, while any PTS that does occur would fall within the lower end of pinniped hearing ranges (50 Hz to 86 kHz), it would be of small degree and not occur across the entire, or even most sensitive, hearing part of the pinniped hearing range. Hence, any impacts from PTS are likely to be of low severity and not interfere with behaviors critical to reproduction or survival.

Elevated numbers of harbor seal and gray seal mortalities were first observed in July 2018 and occurred across Maine, New Hampshire, and Massachusetts until 2020. Based on tests conducted so far, the main pathogen found in the seals belonging to that UME was phocine distemper virus, although additional testing to identify other factors that may be involved in this UME are underway. Currently, the only active UME is occurring in Maine with some harbor and gray seals testing positive for highly pathogenic avian influenza (HPAI) H5N1. Although elevated strandings continue, neither UME (alone or in combination) provide cause for concern regarding population-level impacts to any of these stocks. For harbor seals, the population abundance is over 75,000 and annual M/SI (350) is well below PBR (2,006) (per the draft 2022 SARs (88 FR 4162; January 24, 2023)). The population abundance for gray seals in the United States is over 27,000, with an estimated overall abundance, including seals in Canada, of approximately 450,000. In addition, the abundance of gray seals is likely increasing in the U.S. Atlantic, as well

as in Canada (per the draft 2022 SARs (88 FR 4162; January 24, 2023)).

Overall, impacts from the Level B harassment take proposed for authorization incidental to Dominion Energy's specified activities would be of relatively low magnitude and a low severity. Similarly, while some individuals may incur PTS overlapping some frequencies that are used for foraging and communication, given the low degree, the impacts would not be expected to impact reproduction or survival of any individuals. In consideration of all of the effects of Dominion Energy's activities combined, we have preliminarily determined that the authorized take will have a negligible impact on harbor seals and gray seals.

Preliminary Negligible Impact Determination

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed monitoring and mitigation measures, NMFS preliminarily finds that the marine mammal take from all of Dominion Energy's specified activities combined would have a negligible impact on all affected marine mammal species or stocks.

Small Numbers

As noted above, only small numbers of incidental take may be authorized under sections 101(a)(5)(A) and (D) of the MMPA for specified activities other than military readiness activities. The MMPA does not define small numbers and so, in practice, where estimated numbers are available, NMFS compares the number of individuals taken to the most appropriate estimation of abundance of the relevant species or stock in our determination of whether an authorization is limited to small numbers of marine mammals. When the predicted number of individuals to be taken is less than one-third of the species or stock abundance, the take is considered to be of small numbers. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

NMFS proposes to authorize incidental take (by Level A harassment and Level B harassment) of 21 species of marine mammal (with 22 total managed stocks). The maximum number of takes estimated within any one year and proposed for authorization relative to the best available population abundance is less than one-third for all species and stocks potentially impacted (*i.e.,* less than 3 percent for fifteen stocks, less than 10 percent for five stocks, and less than 20 percent for one stock (see Table 29)). For one species, the melon-headed whale, there is no available abundance estimate (Hayes *et al.,* 20220); however, given that only 5 takes, by Level B harassment only, are proposed to be authorized, the amount of take relative to the population can reasonably be considered small. Based on the analysis contained herein of the proposed activities (including the proposed mitigation and monitoring measures) and the estimated take of marine mammals, NMFS preliminarily finds that small numbers of marine mammals may be taken relative to the population abundance of the affected species or stocks.

Unmitigable Adverse Impact Analysis and Determination

There are no relevant subsistence uses of the affected marine mammal stocks or species implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act (ESA)

Section 7(a)(2) of the Endangered Species Act of 1973 (ESA: 16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. To ensure ESA compliance for the promulgation of rulemakings, NMFS consults internally whenever we propose to authorize take for endangered or threatened species, in this case with the NMFS Greater Atlantic Regional Field Office (GARFO).

NMFS is proposing to authorize the take of four marine mammal species which are listed under the ESA: the North Atlantic right, sei, fin, and sperm whale. The Permit and Conservation Division requested initiation of Section 7 consultation on April 4, 2023, with GARFO for the issuance of this proposed rulemaking. NMFS will conclude the Endangered Species Act consultation prior to reaching a determination regarding the proposed issuance of the authorization. The proposed regulations and any subsequent LOA(s) would be conditioned such that, in addition to measures included in those documents, the applicant would also be required to abide by the reasonable and prudent measures and terms and conditions of a Biological Opinion and Incidental Take Statement, issued by NMFS, pursuant to section 7 of the Endangered Species Act.

Proposed Promulgation

As a result of these preliminary determinations, NMFS proposes to promulgate an ITA for Dominion Energy that would authorize take, by Level A harassment and Level B harassment, of marine mammals incidental to construction activities associated with the CVOW–C project offshore of Virginia for a 5-year period from February 5, 2024, through February 4, 2029, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Request for Additional Information and Public Comments

NMFS requests interested persons to submit comments, information, and suggestions concerning Dominion Energy's request and the proposed regulations (see **ADDRESSES**). All comments will be reviewed and evaluated as we prepare the final rule and make final determinations on whether to issue the requested authorization. This proposed rule and referenced documents provide all environmental information relating to our proposed action for public review.

Recognizing, as a general matter, that this action is one of many current and future wind energy actions, we invite comment on the relative merits of the IHA, single-action rule/LOA, and programmatic multi-action rule/LOA approaches, including potential marine mammal take impacts resulting from this and other related wind energy actions and possible benefits resulting from regulatory certainty and efficiency.

Classification

Pursuant to the procedures established to implement Executive Order 12866, the Office of Management and Budget has determined that this proposed rule is not significant.

Pursuant to section 605(b) of the Regulatory Flexibility Act (RFA), the Chief Counsel for Regulation of the Department of Commerce has certified to the Chief Counsel for Advocacy of the Small Business Administration that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities. Dominion Energy is the sole entity that would be subject to the requirements in these proposed regulations, and Dominion Energy is not a small governmental jurisdiction, small organization, or small business, as defined by the RFA. Under the RFA,

governmental jurisdictions are considered to be small if they are governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000. Because of this certification, a regulatory flexibility analysis is not required and none has been prepared.

Notwithstanding any other provision of law, no person is required to respond to nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act (PRA) unless that collection of information displays a currently valid Office of Management and Budget (OMB) control number. These requirements have been approved by OMB under control number 0648–0151 and include applications for regulations, subsequent LOA, and reports. Send comments regarding any aspect of this data collection, including suggestions for reducing the burden, to NMFS.

The Coastal Zone Management Act (CZMA) requires Federal actions within and outside the coastal zone that have reasonably foreseeable effects on any coastal use or natural resource of the coastal zone be consistent with the enforceable policies of a state's federally approved coastal management program. 16 U.S.C. 1456(c). Additionally, regulations implementing the CZMA require non-Federal applicants for Federal licenses or permits to submit a consistency certification to the state that declares that the proposed activity complies with the enforceable policies of the state's approved management program and will be conducted in a manner consistent with such program.

In 2021, the Virginia Electric and Power Company, doing business as Dominion Energy Virginia, submitted a Federal consistency certification to the Virginia Department of Environmental Quality (VDEQ) seeking concurrence that the construction, operations, and decommissioning activities of the proposed CVOW–C project is consistent with the enforceable policies of the State's federally approved coastal management program. Although no project components are proposed in the State of North Carolina or in North Carolina State waters, Dominion Energy also submitted a Federal consistency certification to the North Carolina Division of Coastal Management. A revised draft of the consistency certifications dated May 2022 was prepared and submitted to each state and is included as Appendix P of the company's Construction and Operation Plan.

NMFS has determined that Dominion Energy's application for authorization to take small numbers of marine mammals incidental to the development of the CVOW–C project on the outer continental shelf of the Atlantic Ocean is an unlisted activity and, thus, is not, at this time, subject to Federal consistency requirements in the absence of the receipt and prior approval of an unlisted activity review request from the state by the Director of NOAA's Office for Coastal Management. This determination does not excuse Dominion Energy from responsibility to seek concurrence from VDEQ on other Federal permits, approvals, or actions that might be subject to consistency review pursuant to the CZMA.

List of Subjects in 50 CFR Part 217

Administrative practice and procedure, Endangered and threatened species, Fish, Fisheries, Marine mammals, Penalties, Reporting and recordkeeping requirements, Wildlife.

Dated: April 24, 2023.

Samuel D. Rauch, III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For reasons set forth in the preamble, NMFS proposes to amend 50 CFR part 217 as follows:

PART 217—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

■ 1. The authority citation for part 217 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.,* unless otherwise noted.

■ 2. Add subpart DD, consisting of §§ 217.290 through 217.299, to read as follows:

Subpart DD—Taking Marine Mammals Incidental to the Coastal Virginia Offshore Wind Commercial Project Offshore Virginia

Sec.

217.290 Specified activity and specified geographical region.
217.291 Effective dates.
217.292 Permissible methods of taking.
217.293 Prohibitions.
217.294 Mitigation requirements.
217.295 Requirements for monitoring and reporting.
217.296 Letter of Authorization.
217.297 Modifications of Letter of Authorization.
217.298—217.299 [Reserved]

Subpart DD—Taking Marine Mammals Incidental to the Coastal Virginia Offshore Wind Commercial Project Offshore Virginia

§ 217.290 Specified activity and specified geographical region.

(a) Regulations in this subpart apply only to the taking of marine mammals that occurs incidental to activities associated with construction of the Coastal Virginia Offshore Wind Commercial (CVOW–C) project by Virginia Electric and Power Company, doing business as Dominion Energy Virginia (Dominion Energy), and those persons it authorizes or funds to conduct activities on its behalf in the area outlined in paragraph (b) of this section.

(b) The taking of marine mammals by Dominion Energy may be authorized in a Letter of Authorization (LOA) only if it occurs in the Bureau of Ocean Energy Management (BOEM) Lease Area Outer Continental Shelf (OCS)–A–0483 Commercial Lease of Submerged Lands for Renewable Energy Development, along export cable routes, and at the sea-to-shore transition points west of the firing range at the State Military Reservation in Virginia Beach, Virginia.

(c) The taking of marine mammals by Dominion Energy is only authorized if it occurs incidental to the following activities associated with the CVOW–C project: installation of up to 176 wind turbine generator (WTG) and 3 offshore substation (OSS) foundations by impact and vibratory pile driving, impact and vibratory pile driving associated with cable landfall construction; and high-resolution geophysical (HRG) site characterization surveys.

§ 217.291 Effective dates.

Regulations in this subpart are effective from February 5, 2024, through February 4, 2029.

§ 217.292 Permissible methods of taking.

Under an LOA, issued pursuant to §§ 216.106 of this chapter and 217.296, Dominion Energy, and those persons it authorizes or funds to conduct activities on its behalf, may incidentally, but not intentionally, take marine mammals within the area described in § 217.290(b) in the following ways, provided Dominion Energy is in complete compliance with all terms, conditions, and requirements of the regulations in this subpart and the appropriate LOA:

(a) By Level B harassment associated with the acoustic disturbance of marine mammals by impact and vibratory pile driving (WTG and OSS foundation installation), impact and vibratory pile

driving during cable landfall construction (temporary goal posts and temporary cofferdams), and HRG site characterization surveys; and

(b) By Level A harassment associated with the acoustic disturbance of marine mammals by impact pile driving WTG and OSS foundations.

(c) Take by mortality or serious injury of any marine mammal species is not authorized; and

(d) The incidental take of marine mammals by the activities listed in paragraphs (a) and (b) of this section is limited to the following species:

TABLE 1 TO PARAGRAPH (d)

Marine mammal species	Scientific name	Stock
Fin whale	*Balaenoptera physalus*	Western North Atlantic.
Sei whale	*Balaenoptera borealis*	Nova Scotia.
Minke whale	*Balaenoptera acutorostrata*	Canadian East Coastal.
North Atlantic right whale	*Eubalaena glacialis*	Western North Atlantic.
Humpback whale	*Megaptera novaeangliae*	Gulf of Maine.
Sperm whale	*Physeter macrocephalus*	North Atlantic.
Atlantic spotted dolphin	*Stenella frontalis*	Western North Atlantic.
Atlantic white-sided dolphin	*Lagenorhynchus acutus*	Western North Atlantic.
Bottlenose dolphin	*Tursiops truncatus*	Western North Atlantic—Offshore.
		Southern Migratory Coastal.
Clymene dolphin	*Stenella clymene*	Western North Atlantic.
Common dolphin	*Delphinus delphis*	Western North Atlantic.
False killer whale	*Pseudorca crassidens*	Western North Atlantic.
Harbor porpoise	*Phocoena phocoena*	Gulf of Maine/Bay of Fundy.
Melon-headed whale	*Peponocephala electra*	Western North Atlantic.
Long-finned pilot whale	*Globicephala melas*	Western North Atlantic.
Pantropical spotted dolphin	*Stenella attenuata*	Western North Atlantic.
Pygmy sperm whale	*Kogia breviceps*	Western North Atlantic.
Short-finned pilot whale	*Globicephala macrorhynchus*	Western North Atlantic.
Risso's dolphin	*Grampus griseus*	Western North Atlantic.
Gray seal	*Halichoerus grypus*	Western North Atlantic.
Harbor seal	*Phoca vitulina*	Western North Atlantic.

§ 217.293 Prohibitions.

Except for the takings described in § 217.292 and authorized by an LOA issued under § 217.296 or § 217.297, it is unlawful for any person to do any of the following in connection with the activities described in this subpart:

(a) Violate, or fail to comply with, the terms, conditions, and requirements of this subpart or an LOA issued under §§ 217.296 and 217.297;

(b) Take any marine mammal not specified in § 217.292(d);

(c) Take any marine mammal specified in the LOA in any manner other than as specified in the LOA; or

(d) Take any marine mammal specified in § 217.292(d), after NMFS determines such taking results in more than a negligible impact on the species or stocks of such marine mammals.

§ 217.294 Mitigation requirements.

When conducting the activities identified in §§ 217.290 and 217.292, Dominion Energy must implement the mitigation measures contained in this section and any LOA issued under §§ 217.296 and 217.297. These mitigation measures include, but are not limited to:

(a) *General conditions.* The following measures apply to the CVOW–C Project:

(1) A copy of any issued LOA must be in the possession of Dominion Energy and its designees, all vessel operators, visual protected species observers (PSOs), passive acoustic monitoring (PAM) operators, pile driver operators, and any other relevant designees operating under the authority of the issued LOA.

(2) Dominion Energy must conduct briefings between construction supervisors, construction crews, and the PSO and PAM team prior to the start of all construction activities, and when new personnel join the work, in order to explain responsibilities, communication procedures, marine mammal monitoring and reporting protocols, and operational procedures. A simple guide must be included with the Marine Mammal Monitoring Plan to aid personnel in identifying species if they are observed in the vicinity of the project area.

(3) Prior to and when conducting any in-water construction activities and vessel operations, Dominion Energy personnel (*e.g.,* vessel operators, PSOs) must use available sources of information on North Atlantic right whale presence in or near the project area including daily monitoring of the Right Whale Sightings Advisory System, and monitoring of Coast Guard VHF Channel 16 throughout the day to receive notification of any sightings and/or information associated with any Slow Zones (*i.e.,* Dynamic Management Areas (DMAs) and/or acoustically-triggered slow zones) to provide situational awareness for both vessel operators and PSO.

(4) Dominion Energy must ensure that any visual observations of an Endangered Species Act (ESA)-listed marine mammal are communicated to PSOs and vessel captains during the concurrent use of multiple project-associated vessels (of any size; *e.g.,* construction surveys, crew/supply transfers, *etc.*).

(5) Dominion Energy must establish and implement clearance and shutdown zones as described in the LOA.

(6) Dominion Energy must instruct all vessel personnel regarding the authority of the PSO(s). Any disagreement between the Lead PSO and the vessel operator would only be discussed after shutdown has occurred.

(7) If an individual from a species for which authorization has not been granted, or a species for which authorization has been granted but the authorized take number has been met, is observed entering or within the relevant Level B harassment zone for a specified activity, pile driving and HRG acoustic sources must be shut down immediately, unless shutdown would result in imminent risk of injury or loss of life to an individual, pile refusal, or pile instability, or be delayed if the activity has not commenced. Impact and vibratory pile driving and initiation of

HRG acoustic sources must not commence or resume until the animal(s) has been confirmed to have left the relevant clearance zone or the observation time has elapsed with no further sightings.

(8) Construction and survey activities shall only commence when visual clearance zones are fully visible (*e.g.,* not obscured by darkness, rain, fog, *etc.*) and clear of marine mammals, as determined by the Lead PSO, for at least 30 minutes immediately prior to initiation of equipment (*i.e.,* vibratory and impact pile driving, HRG surveys that use boomers, sparkers, and Compressed High-Intensity Radiated Pulses (CHIRPs)).

(9) Any visual or acoustic detection within the clearance or shutdown zones must trigger a delay to the commencement of construction and survey activities. Any marine mammals observed within a clearance or shutdown zone must be allowed to remain in the area (*i.e.,* must leave of their own volition) prior to commencing pile driving activities or HRG surveys.

(10) Dominion Energy must treat any large whale sighted by a PSO or acoustically detected by a PAM operator as if it were a North Atlantic right whale and apply the mitigation measures applicable to North Atlantic right whales, unless a PSO or a PAM operator confirms the large whale is another type of whale.

(11) Following a shutdown, construction and survey activities shall not recommence until the minimum visibility zone is fully visible and clear of marine mammals for 30 minutes and no marine mammals have been detected acoustically within the PAM clearance zone for 30 minutes.

(12) For in-water construction heavy machinery activities, other than impact and vibratory pile driving, if a marine mammal is on a path towards or comes within 10 m of equipment, Dominion Energy must cease operations until the marine mammal has moved more than 10 m on a path away from the activity to avoid direct interaction with equipment.

(13) All vessels must be equipped with an Automatic Identification System (AIS) and Dominion Energy must report all Maritime Mobile Service Identify (MMSI) numbers to NMFS Office of Protected Resources prior to initiating in-water activities.

(b) *Vessel strike avoidance measures.* The following measures apply to all vessels associated with the CVOW–C:

(1) Prior to the start of construction activities, all vessel operators and crew must receive a protected species identification training that covers, at a minimum:

(i) Identification of marine mammals and other protected species known to occur or which have the potential to occur in the Dominion Energy project area;

(ii) Training on making observations in both good weather conditions (*i.e.,* clear visibility, low winds, low sea states) and bad weather conditions (*i.e.,* fog, high winds, high sea states, with glare);

(iii) Training on information and resources available to the project personnel regarding the applicability of Federal laws and regulations for protected species;

(iv) Observer training related to vessel strike avoidance measures must be conducted for all vessel operators and crew prior to the start of in-water construction activities; and

(v) Confirmation of marine mammal observer training must be documented on a training course log sheet and reported to NMFS;

(2) All vessel operators and crews, regardless of their vessel's size, must maintain a vigilant watch for all marine mammals and slow down, stop their vessel, or alter course, as appropriate, to avoid striking any marine mammal;

(3) All vessels must have a visual observer on board who is responsible for monitoring the vessel strike avoidance zone for marine mammals. Visual observers may be a PSO or crew member, but crew members responsible for these duties must be provided sufficient training by Dominion Energy to distinguish marine mammals from other types of animals or objects and must be able to identify a marine mammal as a North Atlantic right whale, other whale (defined in this context as sperm whales or baleen whales other than North Atlantic right whales), or other marine mammal. Crew members serving as visual observers must not have duties other than observing for marine mammals while the vessel is operating over 10 knots (kts);

(4) Year-round and when a vessel is in transit, all vessel operators must continuously monitor U.S. Coast Guard VHF Channel 16, over which North Atlantic right whale sightings are broadcasted. At the onset of transiting and at least once every four hours, vessel operators and/or trained crew members must monitor the project's Situational Awareness System, WhaleAlert, and the Right Whale Sighting Advisory System (RWSAS) for the presence of North Atlantic right whales. Any observations of any large whale by any Dominion Energy staff or contractors, including vessel crew, must be communicated immediately to PSOs, PAM operator, and all vessel captains to increase situational awareness. Conversely, any large whale observation or detection via a sighting network (*e.g.,* Mysticetus) by PSOs or PAM operators must be conveyed to vessel operators and crew;

(5) Any observations of any large whale by any Dominion Energy staff or contractor, including vessel crew, must be communicated immediately to PSOs and all vessel captains to increase situational awareness;

(6) Nothing in this subpart exempts vessels from applicable speed regulations at 50 CFR 224.105;

(7) All vessels must transit active Slow Zones (*i.e.,* Dynamic Management Areas (DMAs) or acoustically-triggered slow zone), and Seasonal Management Areas (SMAs) at 10 kts or less;

(8) Between November 1st and April 30th, all vessels must transit at 10 kts or less;

(9) All vessels, regardless of size, must immediately reduce speed to 10 kts or less when any large whale, mother/calf pairs, or large assemblages of non-delphinid cetaceans are observed (within 500 m) of an underway vessel;

(10) All vessels, regardless of size, must immediately reduce speed to 10 kts or less when a North Atlantic right whale is sighted, at any distance, by anyone on the vessel;

(11) All transiting vessels operating at any speed must have a dedicated visual observer on duty at all times to monitor for marine mammals within a 180 degree direction of the forward path of the vessel (90 degrees port to 90 degree starboards) located at the best vantage point for ensuring vessels are maintaining appropriate separation distances from marine mammals. Visual observers must be equipped with alternative monitoring technology for periods of low visibility (*e.g.,* darkness, rain, fog, *etc.*). The dedicated visual observer must receive prior training on protected species detection and identification, vessel strike minimization procedures, how and when to communicate with the vessel captain, and reporting requirements. Visual observers may be third-party observers (*i.e.,* NMFS-approved PSOs) or crew members. Observer training related to these vessel strike avoidance measures must be conducted for all vessel operators and crew prior to the start of vessel use;

(12) All vessels must maintain a minimum separation distance of 500 m from North Atlantic right whales. If underway and making way, all vessels must steer a course away from any

sighted North Atlantic right whale at 10 kts or less such that the 500-m minimum separation distance requirement is not violated. If a North Atlantic right whale is sighted within 500 m of a transiting vessel, that vessel must shift the engine to neutral. Engines must not be engaged until the whale has moved outside of the vessel's path and beyond 500 m. If a whale is observed but cannot be confirmed as a species other than a North Atlantic right whale, the vessel operator must assume that it is a North Atlantic right whale;

(13) All vessels must maintain a minimum separation distance of 100 m from sperm whales and baleen whales other than North Atlantic right whales. If one of these species is sighted within 100 m of a transiting vessel, that vessel must shift the engine to neutral. Engines must not be engaged until the whale has moved outside of the vessel's path and beyond 100 m;

(14) All vessels must maintain a minimum separation distance of 50 m from all delphinoid cetaceans and pinnipeds, with an exception made for those that approach the vessel (*e.g.,* bow-riding dolphins). If a delphinid cetacean or pinniped is sighted within 50 m of a transiting vessel, that vessel must shift the engine to neutral, with an exception made for those that approach the vessel (*e.g.,* bow-riding dolphins). Engines must not be engaged until the animal(s) has moved outside of the vessel's path and beyond 50 m;

(15) When a marine mammal(s) is sighted while a vessel is transiting, the vessel must take action as necessary to avoid violating the relevant separation distances (*e.g.,* attempt to remain parallel to the animal's course, avoid excessive speed or abrupt changes in direction until the animal has left the area). If a marine mammal(s) is sighted within the relevant separation distance, the vessel must shift the engine to neutral and not engage the engine(s) until the animal(s) outside and on a path away from the separation area. This does not apply to any vessel towing gear or any situation where respecting the relevant separation distance would be unsafe (*i.e.,* any situation where the vessel is navigationally constrained);

(16) All vessels underway must not divert or alter course to approach any marine mammal. If a separation distance is triggered, any vessel underway must avoid abrupt changes in course direction and transit at 10 kts or less until the animal is outside the relevant separation distance; and

(17) Dominion Energy must submit a North Atlantic right whale vessel strike avoidance plan 180 days prior to the commencement of vessel use. This plan must describe, at a minimum, how PAM, in combination with visual observations, would be conducted to ensure the transit corridor is clear of right whales and would also provide details on the vessel-based observer protocols on transiting vessels.

(c) *WTG and OSS foundation installation.* The following requirements apply to pile driving activities associated with the installation of WTG and OSS foundations:

(1) Foundation vibratory and impact pile driving may not occur November 1st through April 30th;

(2) Monopiles must be no larger than 9.5-m in diameter, representing the larger end of the tapered 9.5/7.5-m monopile design. Pin piles must be no larger than 2.8-m in diameter. During all monopile and pin pile installation, the minimum amount of hammer energy necessary to effectively and safely install and maintain the integrity of the piles must be used. Hammer energies must not exceed 4,000 kilojoules (kJ) for monopile installations and 3,000 kJ for pin pile installation. No more than two monopile foundation or two pin piles for jacket foundations may be installed per day;

(3) Dominion Energy must not initiate pile driving earlier than 1 hour after civil sunrise or later than 1.5 hours prior to civil sunset, unless Dominion Energy submits, and NMFS approves an Alternative Monitoring Plan as part of the Pile Driving and Marine Mammal Monitoring Plan that reliably demonstrates the efficacy of their night vision devices;

(4) Dominion Energy must utilize a soft-start protocol for each impact pile driving event of all monopiles and pin piles by performing 4–6 strikes per minute at 10 to 20 percent of the maximum hammer energy, for a minimum of 20 minutes;

(5) Soft-start must occur at the beginning of monopile and pin pile installation and at any time following a cessation of impact pile driving of 30 minutes or longer;

(6) If a marine mammal is detected, visually or acoustically, within or about to enter the applicable clearance zones, prior to the beginning of soft-start procedures, impact pile driving must be delayed until the animal has been visually observed exiting the clearance zone or until a specific time period has elapsed with no further sightings. The specific time periods are 15 minutes for small odontocetes and pinnipeds and 30 minutes for all other species;

(7) Dominion Energy must deploy dual noise abatement systems that are capable of achieving, at a minimum, 10 decibel (dB) of sound attenuation, during all vibratory and impact pile driving of monopiles and pin piles and comply with the following requirements related noise abatement:

(i) A single bubble curtain must not be used unless paired with another noise attenuation device;

(ii) A big double bubble curtain may be used without being paired with another noise attenuation device;

(iii) The bubble curtain(s) must distribute air bubbles using an air flow rate of at least 0.5 $m^3/(min*m)$. The bubble curtain(s) must surround 100 percent of the piling perimeter throughout the full depth of the water column. In the unforeseen event of a single compressor malfunction, the offshore personnel operating the bubble curtain(s) must make appropriate adjustments to the air supply and operating pressure such that the maximum possible sound attenuation performance of the bubble curtain(s) is achieved;

(iv) The lowest bubble ring must be in contact with the seafloor for the full circumference of the ring, and the weights attached to the bottom ring must ensure 100-percent seafloor contact;

(v) No parts of the ring or other objects may prevent full seafloor contact;

(vi) Construction contractors must train personnel in the proper balancing of airflow to the ring. Construction contractors must submit an inspection/performance report for approval by Dominion Energy within 72 hours following the performance test. Dominion Energy must then submit that report to NMFS; and

(vii) Corrections to the bubble ring(s) to meet the performance standards in this paragraph (c)(7) must occur prior to impact pile driving of monopiles and pin piles. If Dominion Energy uses a noise mitigation device in addition to the bubble curtain, Dominion Energy must maintain similar quality control measures as described in this paragraph (c)(7);

(8) Dominion Energy must conduct sound field verification (SFV) during all vibratory and impact pile driving of the first three monopiles and all piles associated with the first OSS foundation installed. Subsequent SFV is required should additional piles be driven that are anticipated to produce louder sound fields than those previously measured;

(9) Dominion Energy must conduct SFV after construction is complete to estimate turbine operational source levels based on measurements in the near and far-field at a minimum of three locations from each foundation

monitored. These data must be used to also identify estimated transmission loss rates;

(10) Dominion Energy must submit a sound field verification (SFV) plan to NOAA Fisheries for review and approval at least 180 days prior to planned start of pile driving that identifies how Dominion Energy will comply with the following requirements:

(i) Dominion Energy must empirically determine source levels, the ranges to the isopleths corresponding to the Level A harassment and Level B harassment thresholds in meters, and the transmission loss coefficient(s). Dominion Energy may estimate ranges to the Level A harassment and Level B harassment isopleths by extrapolating from *in situ* measurements conducted at several distances from the piles monitored;

(ii) Dominion Energy must perform sound field measurements at four distances from the pile being driven, including, but not limited to, 750 m and the modeled Level B harassment zones to verify the accuracy of those modeled zones;

(iii) The recordings must be continuous throughout the duration of all impact and vibratory hammering of each pile monitored;

(iv) The measurement systems must have a sensitivity appropriate for the expected sound levels from pile driving received at the nominal ranges throughout the installation of the pile;

(v) The frequency range of the system must cover the range of at least 20 hertz (Hz) to 20 kilohertz (kHz);

(vi) The system will be designed to have omnidirectional sensitivity and will be designed so that the predicted broadband received level of all impact pile-driving strikes exceeds the system noise floor by at least 10 dB. The dynamic range of the system must be sufficient such that at each location, pile driving signals are not clipped and are not masked by noise floor; and

(vii) Identify operational noise levels and transmission loss rates;

(11) If acoustic field measurements collected during installation of foundation piles indicate ranges to the isopleths, corresponding to Level A harassment and Level B harassment thresholds, are greater than the ranges predicted by modeling (assuming 10 dB attenuation), Dominion Energy must implement additional noise mitigation measures prior to installing the next monopile. Each modification must be evaluated empirically by acoustic field measurements;

(12) In the event that field measurements indicate ranges to isopleths, corresponding to Level A harassment and Level B harassment thresholds, are greater than the ranges predicted by modeling (assuming 10 dB attenuation), NMFS may expand the relevant harassment, clearance, and shutdown zones and associated monitoring protocols;

(13) If the harassment zones are expanded beyond an additional 1,500 m, additional PSOs must be deployed on additional platforms, with each observer responsible for maintaining watch in no more than 180 degrees and of an area with a radius no greater than 1,500 m;

(14) If acoustic measurements indicate that ranges to isopleths corresponding to the Level A harassment and Level B harassment thresholds are less than the ranges predicted by modeling (assuming 10 dB attenuation), Dominion Energy may request to NMFS a modification of the clearance and shutdown zones for impact pile driving of monopiles and pin piles;

(15) For NMFS to consider a modification request for reduced zone sizes, Dominion Energy must have had to conduct SFV on three or more monopiles and four or more pin piles to verify that zone sizes are consistently smaller than those predicted by modeling (assuming 10 dB attenuation) and subsequent piles would be installed within and under similar conditions (*e.g.,* monitoring data collected during installation of a typical pile cannot be used to adjust difficult-to-drive pile ranges);

(16) If a subsequent monopile installation location is selected that was not represented by the previous three locations (*i.e.,* substrate composition, water depth), SFV is required;

(17) Dominion Energy must utilize, at minimum, four PSOs who must be actively observing for marine mammals before, during, and after pile driving. At least two PSOs must be stationed on the primary pile driving vessel and at least two PSOs must be stationed on a secondary, dedicated PSO vessel. The dedicated PSO vessel must be positioned approximately 3 km from the pile being driven and must circle the pile at a speed of less than 10 knots;

(18) PSOs must be able to visually clear (*i.e.,* confirm no marine mammals are present) an area that extends around the pile being driven as described in the LOA. The entire minimum visibility zone must be visible (*i.e.,* not obscured by dark, rain, fog, *etc.*) for a full 30 minutes immediately prior to commencing vibratory and impact pile driving (2,000 m);

(19) PSOs must visually monitor clearance zones for marine mammals for a minimum of 60 minutes prior to commencing pile driving. Prior to initiating soft-start procedures, all clearance zones must be visually confirmed to be free of marine mammals for 30 minutes before pile driving can begin;

(20) At least one PAM operator must review data from at least 24 hours prior to pile driving and actively monitor hydrophones for 60 minutes prior to pile driving. All clearance zones must be acoustically confirmed to be free of marine mammals for 60 minutes before activities can begin immediately prior to starting a soft-start of impact pile driving;

(21) If a marine mammal is observed entering or within the relevant clearance zone prior to the initiation of vibratory and/or impact pile driving activities, pile driving must be delayed and must not begin until either the marine mammal(s) has voluntarily left the specific clearance zones and have been visually or acoustically confirmed beyond that clearance zone, or, when specific time periods have elapsed with no further sightings or acoustic detections. The specific time periods are 15 minutes for small odontocetes and 30 minutes for all other marine mammal species;

(22) For North Atlantic right whales, any acoustic detection must trigger a delay to the commencement of pile driving. The clearance zone may only be declared clear if no confirmed North Atlantic right whale acoustic detections (in addition to visual) have occurred within the PAM clearance zone during the 60-minute monitoring period. Any large whale sighting by a PSO or detected by a PAM operator that cannot be identified by species must be treated as if it were a North Atlantic right whale;

(23) If a marine mammal is observed entering or within the respective shutdown zone, as defined in the LOA, after pile driving has begun, the PSO must call for a temporary shutdown of pile driving;

(24) Dominion Energy must immediately cease pile driving when a marine mammal is detected within a shutdown zone, unless shutdown is not practicable due to imminent risk of injury or loss of life to an individual, pile refusal, or pile instability. In this situation, Dominion Energy must reduce hammer energy to the lowest level practicable and the reason(s) for not shutting down must be documented and reported to NMFS;

(25) If pile driving has been shut down due to the presence of a North Atlantic right whale, pile driving may not restart until the North Atlantic right

whale is no longer observed or 30 minutes has elapsed since the last detection;

(26) Upon restarting impact pile driving, soft-start protocols must be followed; and

(27) Pile driving must not restart until either the marine mammal(s) has voluntarily left the specific clearance zones and has been visually or acoustically confirmed beyond that clearance zone, or, when specific time periods have elapsed with no further sightings or acoustic detections have occurred. The specific time periods are 15 minutes for small odontocetes and 30 minutes for all other marine mammal species. In cases where these criteria are not met, pile driving may restart only if necessary to maintain pile stability at which time Dominion Energy must use the lowest hammer energy practicable to maintain stability.

(d) *Cable landfall construction.* The following requirements apply to cable landfall pile driving activities:

(1) Dominion Energy must conduct pile driving during daylight hours only.

(2) Dominion Energy must have a minimum of two PSOs on active duty during any installation and removal of the temporary cofferdams and goal posts. PSOs must be located at the best vantage point(s) on the pile driving platform or secondary platform in the immediate vicinity of the pile driving platform, in order to ensure that appropriate visual coverage is available for the entire visual clearance zone and as much of the Level B harassment zone, as possible.

(3) Prior to the start of pile driving activities, at least two PSOs must monitor the clearance zone for 30 minutes, continue monitoring during pile driving and for 30 minutes post-pile driving.

(4) If a marine mammal(s) is observed entering or is observed within the clearance zones, pile driving must not commence until the animal(s) has exited the zone or a specific amount of time has elapsed since the last sighting. The specific time periods are 15 minutes for small odontocetes and pinnipeds and 30 minutes for all other marine mammal species.

(5) If a marine mammal is observed entering or within the respective shutdown zone, as defined in the LOA, after pile driving has begun, the PSO must call for a temporary shutdown of pile driving.

(6) Dominion Energy must immediately cease pile driving when a marine mammal is detected within a shutdown zone, unless shutdown is not practicable due to imminent risk of injury or loss of life to an individual, pile refusal, or instability. In this situation, Dominion Energy must reduce hammer energy to the lowest level practicable and the reason(s) for not shutting down must be documented and reported to NMFS.

(7) Pile driving must not restart until either the marine mammal(s) has voluntarily left the specific clearance zones and has been visually or acoustically confirmed beyond that clearance zone, or, when specific time periods have elapsed with no further sightings or acoustic detections have occurred. The specific time periods are 15 minutes for small odontocetes and pinnipeds and 30 minutes for all other marine mammal species. In cases where the criteria in this paragraph (e)(7) is not met, pile driving may restart only if necessary to maintain pile stability at which time Dominion Energy must use the lowest hammer energy practicable to maintain stability.

(8) If pile driving has been shut down due to the presence of a North Atlantic right whale, pile driving may not restart until the North Atlantic right whale is no longer observed or 30 minutes has elapsed since the last detection.

(9) Dominion Energy must employ a soft-start for all impact pile driving. Soft start requires contractors to provide an initial set of three strikes at reduced energy, followed by a 30-second waiting period, then two subsequent reduced-energy strike sets.

(e) *HRG surveys.* The following requirements apply to HRG surveys operating sub bottom profilers (SBPs):

(1) Dominion Energy is required to have at least one PSO on active duty per vessel during HRG surveys that are conducted during daylight hours (*i.e.,* from 30 minutes prior to civil sunrise through 30 minutes following civil sunset) and at least two PSOs on active duty per vessel during HRG surveys that are conducted during nighttime hours.

(2) Dominion Energy must deactivate acoustic sources during periods where no data are being collected, except as determined to be necessary for testing. Unnecessary use of the acoustic source(s) is prohibited.

(3) Dominion Energy is required to ramp-up sub-bottom profilers (SBPs) prior to commencing full power, unless the equipment operates on a binary on/off switch. ensure visual clearance zones are fully visible (*e.g.,* not obscured by darkness, rain, fog, *etc.*) and clear of marine mammals, as determined by the Lead PSO, for at least 30 minutes immediately prior to the initiation of survey activities using acoustic sources specified in the LOA.

(4) Prior to a ramp-up procedure starting or activating SBPs, the operator must notify the Lead PSO of the planned start time. This notification time must not be less than 60 minutes prior to the planned ramp-up or activation as all relevant PSOs must monitor the clearance zone for 30 minutes prior to the initiation of ramp-up or activation.

(5) Prior to starting the survey and after receiving confirmation from the PSOs that the clearance zone is clear of any marine mammals, Dominion Energy must ramp-up sources to half power for 5 minutes and then proceed to full power, unless the source operates on a binary on/off switch in which case ramp-up is not required. Ramp-up and activation must be delayed if a marine mammal(s) enters its respective shutdown zone. Ramp-up and activation may only be reinitiated if the animal(s) has been observed exiting its respective shutdown zone or until 15 minutes for small odontocetes and pinnipeds, and 30 minutes for all other species, has elapsed with no further sightings.

(6) Dominion Energy must implement a 30-minute clearance period of the clearance zones immediately prior to the commencing of the survey or when there is more than a 30 minute break in survey activities or PSO monitoring. A clearance period is a period when no marine mammals are detected in the relevant zone.

(7) If a marine mammal is observed within a clearance zone during the clearance period, ramp-up or acoustic surveys may not begin until the animal(s) has been observed voluntarily exiting its respective clearance zone or until a specific time period has elapsed with no further sighting. The specific time period is 15 minutes for small odontocetes and seals, and 30 minutes for all other species.

(8) Any large whale sighted by a PSO within 1 km of the SBP that cannot be identified by species must be treated as if it were a North Atlantic right whale and Dominion Energy must apply the mitigation measure applicable to this species.

(9) In any case when the clearance process has begun in conditions with good visibility, including via the use of night vision equipment (infrared (IR)/thermal camera), and the Lead PSO has determined that the clearance zones are clear of marine mammals, survey operations would be allowed to commence (*i.e.,* no delay is required) despite periods of inclement weather and/or loss of daylight.

(10) Once the survey has commenced, Dominion Energy must shut down SBPs if a marine mammal enters a respective shutdown zone, except in cases when the shutdown zones become obscured

for brief periods due to inclement weather, survey operations would be allowed to continue (*i.e.,* no shutdown is required) so long as no marine mammals have been detected. The shutdown requirement does not apply to small delphinids of the following genera: Delphinus, Stenella, Lagenorhynchus, and Tursiops. If there is uncertainty regarding the identification of a marine mammal species (*i.e.,* whether the observed marine mammal belongs to one of the delphinid genera for which shutdown is waived), the PSOs must use their best professional judgment in making the decision to call for a shutdown. Shutdown is required if a delphinid that belongs to a genus other than those specified in this paragraph (e)(10) is detected in the shutdown zone.

(11) If SBPs have been shut down due to the presence of a marine mammal, the use of SBPs may not commence or resume until the animal(s) has been confirmed to have left the Level B harassment zone or until a full 15 minutes (for small odontocetes and seals) or 30 minutes (for all other marine mammals) have elapsed with no further sighting.

(12) Dominion Energy must immediately shutdown any SBP acoustic source if a marine mammal is sighted entering or within its respective shutdown zones. If there is uncertainty regarding the identification of a marine mammal species (*i.e.,* whether the observed marine mammal belongs to one of the delphinid genera for which shutdown is waived), the PSOs must use their best professional judgment in making the decision to call for a shutdown. Shutdown is required if a delphinid that belongs to a genus other than those specified in this paragraph (e)(12) is detected in the shutdown zone.

(13) If a SBP is shut down for reasons other than mitigation (*e.g.,* mechanical difficulty) for less than 30 minutes, it would be allowed to be activated again without ramp-up only if:

(i) PSOs have maintained constant observation; and

(ii) No additional detections of any marine mammal occurred within the respective shutdown zones.

(f) *Fisheries monitoring surveys.* The following measures apply to fishery monitoring surveys using trap/pot gear:

(1) All captains and crew conducting fishery surveys must be trained in marine mammal detection and identification. Marine mammal monitoring will be conducted by the captain and/or a member of the scientific crew before (within 1 nautical mile (nm) and 15 minutes prior to deploying gear), during, and after haul back.

(2) Survey gear will be deployed as soon as possible once the vessel arrives on station.

(3) Dominion Energy and/or its cooperating institutions, contracted vessels, or commercially-hired captains must implement the following ''move-on'' rule: If marine mammals are sighted within 1 nm of the planned location and 15 minutes before gear deployment, Dominion Energy and/or its cooperating institutions, contracted vessels, or commercially-hired captains, as appropriate, must move the vessel away from the marine mammal to a different section of the sampling area. If, after moving on, marine mammals are still visible from the vessel, Dominion Energy and/or its cooperating institutions, contracted vessels, or commercially-hired captains must move again or skip the station.

(4) If a marine mammal is deemed to be at risk of interaction after the gear is set, all gear must be immediately removed from the water.

(5) Dominion Energy must maintain visual monitoring effort during the entire period of time that gear is in the water (*i.e.,* throughout gear deployment, fishing, and retrieval).

(6) All fisheries monitoring gear must be fully cleaned and repaired (if damaged) before each use.

(7) All lost gear must be reported to NOAA Greater Atlantic Regional Fisheries Office Protected Resources Division (*nmfs.gar.incidental-take@noaa.gov*) within 24 hours of the documented time of missing or lost gear. This report must include information on any markings on the gear and any efforts undertaken or planned to recover the gear. All reasonable efforts, that do not compromise human safety, must be undertaken to recover gear.

(8) Dominion Energy must implement measures within the Atlantic Large Whale Take Reduction Plan at 50 CFR 229.32.

§ 217.295 Requirements for monitoring and reporting.

(a) *Protected species observer (PSO) and passive acoustic monitoring (PAM) operator qualifications.* Dominion Energy must implement the following measures applicable to PSOs and PAM operators:

(1) Dominion Energy must use independent, dedicated, qualified PSOs, meaning that the PSOs must be employed by a third-party observer provider, must have no tasks other than to conduct observational effort, collect data, and communicate with and instruct relevant vessel crew with regard to the presence of protected species and mitigation requirements;

(2) PSOs must successfully complete relevant training, including completion of all required coursework and passing a written and/or oral examination developed for the training;

(3) PSOs must have successfully attained a bachelor's degree from an accredited college or university with a major in one of the natural sciences, a minimum of 30 semester hours or equivalent in the biological sciences, and at least one undergraduate course in math or statistics. The educational requirements may be waived if the PSO has acquired the relevant skills through alternate experience. Requests for such a waiver shall be submitted to NMFS and must include written justification. Alternate experience that may be considered includes, but is not limited to: Secondary education and/or experience comparable to PSO duties; previous work experience conducting academic, commercial, or government sponsored marine mammal surveys; or previous work experience as a PSO; the PSO should demonstrate good standing and consistently good performance of PSO duties;

(4) PSOs must have visual acuity in both eyes (with correction of vision being permissible) sufficient enough to discern moving targets on the water's surface with the ability to estimate the target size and distance (binocular use is allowable); ability to conduct field observations and collect data according to the assigned protocols; sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations; writing skills sufficient to document observations, including but not limited to, the number and species of marine mammals observed, the dates and times of when in-water construction activities were conducted, the dates and time when in-water construction activities were suspended to avoid potential incidental injury of marine mammals from construction noise within a defined shutdown zone, and marine mammal behavior; and the ability to communicate orally, by radio, or in-person, with project personnel to provide real-time information on marine mammals observed in the area, as necessary;

(5) All PSOs must be approved by NMFS. Dominion Energy must submit PSO resumes for NMFS' review and approval at least 60 days prior to commencement of in-water construction activities requiring PSOs. Resumes must include dates of training and any prior NMFS approval, as well as dates and description of last experience, and must

be accompanied by information documenting successful completion of an acceptable training course. NMFS shall be allowed three weeks to approve PSOs from the time that the necessary information is received by NMFS, after which PSOs meeting the minimum requirements will automatically be considered approved;

(6) All PSOs must be trained in marine mammal identification and behaviors and must be able to conduct field observations and collect data according to assigned protocols. Additionally, PSOs must have the ability to work with all required and relevant software and equipment necessary during observations;

(7) At least one PSO on active duty for each activity (*i.e.,* foundation installation, cable landfall activities, and HRG surveys) must be designated as the ''Lead PSO''. The Lead PSO must have a minimum of 90 days of at-sea experience working in an offshore environment and is required to have no more than eighteen months elapsed since the conclusion of their last at-sea experience;

(8) PAM operators must complete specialized training for operating PAM systems and must demonstrate familiarity with the PAM system on which they must be working. PSOs may act as both acoustic operators and visual observers (but not simultaneously), so long as they demonstrate that their training and experience are sufficient to perform each task; and

(9) PAM operators may additionally function as PSOs, assuming all qualifications and requirements in paragraphs (a)(1) through (7) of this section are met, but may only perform one role at any one time and must abide by the requirements specified for that role.

(b) *General PSO requirements.* The following measures apply to PSOs during all project activities and must be implemented by Dominion Energy:

(1) PSOs must monitor all clearance and shutdown zones prior to, during, and following pile driving, cable landfall construction activities, and during HRG surveys that use boomers, sparkers, and CHIRPs (with specific monitoring durations and needs described in paragraphs (c) through (e) of this section, respectively). PSOs must also monitor the Level B harassment zones and document any marine mammals observed within these zones, to the extent practicable. PSOs must ensure that there is appropriate visual coverage for the entire clearance and shutdown zones and as much of the Level B harassment zone as possible;

(2) All PSOs must be located at the best vantage point(s) on the primary vessel, pile driving platform, or secondary platform, whichever is most appropriate to the activity occurring, in order to obtain 360 degree visual coverage of the entire clearance and shutdown zones around the activity area, and as much of the Level B harassment zone as possible. PAM operators may be located on a vessel or remotely on-shore but must have the appropriate equipment (*i.e.,* computer station equipped with a data collection software system (*i.e.,* Mysticetus or similar system and acoustic data analysis software)) available wherever they are stationed;

(3) During all visual observation periods, PSOs must use high magnification (25x) binoculars, standard handheld (7x) binoculars, and the naked eye to search continuously for marine mammals. During impact pile driving, at least one PSO on the primary pile driving vessel must be equipped with functional Big Eye binoculars (*e.g.,* 25 x 150; 2.7 view angle; individual ocular focus; height control). These must be pedestal mounted on the deck at the best vantage point that provides for optimal sea surface observation and PSO safety;

(4) During periods of low visibility (*e.g.,* darkness, rain, fog, poor weather conditions, *etc.*), PSOs must use alternative technology (*i.e.,* infrared or thermal cameras) to monitor the clearance and shutdown zones;

(5) PSOs must not exceed four consecutive watch hours on duty at any time, must have a two-hour (minimum) break between watches, and must not exceed a combined watch schedule of more than 12 hours in a 24-hour period;

(6) Any PSO has the authority to call for a delay or shutdown of project activities;

(7) Any observations of marine mammals must be communicated to PSOs on all nearby project vessels during construction activities and surveys;

(8) PSOs must remain in contact with the PAM operator currently on duty regarding any animal detection that would be approaching or found within the applicable zones no matter where the PAM operator is stationed (*i.e.,* onshore or on a vessel);

(9) During daylight hours when equipment is not operating, Dominion Energy must ensure that visual PSOs conduct, as rotation schedules allow, observations for comparison of sighting rates and behavior with and without use of the specified acoustic sources. Off-effort PSO monitoring must be reflected in the monthly PSO monitoring reports; and

(10) Dominion Energy's personnel and PSOs are required to use available sources of information on North Atlantic right whale presence to aid in monitoring efforts. These include daily monitoring of the Right Whale Sightings Advisory System, consulting of the WhaleAlert app, and monitoring of the Coast Guard's VHF Channel 16 throughout the day to receive notifications of any sightings and information associated with any Dynamic Management Areas, to plan construction activities and vessel routes, if practicable, to minimize the potential for co-occurrence with North Atlantic right whales.

(c) *PSO and PAM operator requirements during WTG and OSS foundation installation.* The following measures apply to PSOs and PAM operators during monopile and OSS foundation installation and must be implemented by Dominion Energy:

(1) At least four PSOs must be actively observing marine mammals before, during, and after installation of foundation piles (*i.e.,* monopiles and pin piles for jacket foundations). At least two PSOs must be stationed and observing on the pile driving vessel and at least two PSOs must be stationed on a secondary, PSO-dedicated vessel. Concurrently, at least one acoustic monitoring PSO (*i.e.,* passive acoustic monitoring (PAM) operator) must be actively monitoring for marine mammals with PAM before, during, and after impact pile driving;

(2) All on-duty visual PSOs must remain in contact with the on-duty PAM operator, who would monitor the PAM systems for acoustic detections of marine mammals in the area, regarding any animal detection that might be approaching or found within the applicable zones no matter where the PAM operator is stationed (*i.e.,* onshore or on a vessel);

(3) If PSOs cannot visually monitor the minimum visibility zone at all times using the equipment described in paragraphs (b)(3) and (4) of this section, pile driving operations must not commence or must shutdown if they are currently active;

(4) All PSOs must begin monitoring 60 minutes prior to pile driving, during, and for 30 minutes after the activity. Pile driving must only commence when the minimum visibility zone is fully visible (*e.g.,* not obscured by darkness, rain, fog, *etc.*) and the clearance zones are clear of marine mammals for at least 30 minutes, as determined by the Lead PSO, immediately prior to the initiation of pile driving. PAM operators must

assist the visual PSOs in monitoring by conducting PAM activities 60 minutes prior to any pile driving, during, and after for 30 minutes for the appropriate size PAM clearance zone (dependent on season). The entire minimum visibility zone must be clear for at least 30 minutes, with no marine mammal detections within the visual or PAM clearance zones prior to the start of pile driving;

(5) For North Atlantic right whales, any visual or acoustic detection must trigger a delay to the commencement of pile driving. In the event that a large whale is sighted or acoustically detected that cannot be confirmed by species, it must be treated as if it were a North Atlantic right whale;

(6) Dominion Energy must conduct PAM for at least 24 hours immediately prior to pile driving activities;

(7) During use of any real-time PAM system, at least one PAM operator must be designated to monitor each system by viewing data or data products that would be streamed in real-time or in near real-time to a computer workstation and monitor;

(8) Dominion Energy must use a minimum of one PAM operator to actively monitor for marine mammals before, during, and after pile driving activities. The PAM operator must assist visual PSOs in ensuring full coverage of the clearance and shutdown zones. The PAM operator must inform the Lead PSO(s) on duty of animal detections approaching or within applicable ranges of interest to the pile driving activity via the data collection software system (*i.e.,* Mysticetus or similar system) who will be responsible for requesting that the designated crewmember implement the necessary mitigation procedures (*i.e.,* delay or shutdown);

(9) PAM operators must be on watch for a maximum of four consecutive hours, followed by a break of at least two hours between watches, and may not exceed a combined watch schedule of more than 12 hours in a single 24-hour period;

(10) Dominion Energy must prepare and submit a Pile Driving and Marine Mammal Monitoring Plan to NMFS for review and approval at least 180 days before the start of any pile driving. The plan must include final pile driving project design (*e.g.,* number and type of piles, hammer type, noise abatement systems, anticipated start date, *etc.*) and all information related to PAM PSO monitoring protocols for pile-driving and visual PSO protocols for all activities; and

(11) A Passive Acoustic Monitoring (PAM) Plan must be submitted to NMFS for review and approval at least 180 days prior to the planned start of WTG or OSS installation. The authorization to take marine mammals would be contingent upon NMFS' approval of the PAM Plan.

(d) *PSO requirements during cable landfall construction.* The following measures apply to PSOs during pile driving associated with cable landfall construction activities and must be implemented by Dominion Energy:

(1) At least two PSOs must be on active duty during all activities related to the installation and removal of cofferdams, goal posts, and casing pipes;

(2) The PSOs must be located at the best vantage points on the pile driving platform or secondary platform in the immediate vicinity of the pile driving; and

(3) PSOs must monitor the clearance zone for the presence of marine mammals for 30 minutes before, throughout the installation of the sheet piles and casing pipes, and for 30 minutes after all pile driving activities have ceased. Pile driving must only commence when visual clearance zones are fully visible (*e.g.,* not obscured by darkness, rain, fog, *etc.*) and clear of marine mammals, as determined by the Lead PSO, for at least 30 minutes immediately prior to initiation of impact or vibratory pile driving.

(e) *PSO requirements during HRG surveys.* The following measures apply to PSOs during HRG surveys using SBPs and must be implemented by Dominion Energy:

(1) Between four and six PSOs must be present on every 24-hour survey vessel and two to three PSOs must be present on every 12-hour survey vessel;

(2) At least one PSO must be on active duty monitoring during HRG surveys conducted during daylight (*i.e.,* from 30 minutes prior to civil sunrise through 30 minutes following civil sunset) and at least two PSOs must be on activity duty monitoring during HRG surveys conducted at night;

(3) PSOs on HRG vessels must begin monitoring 30 minutes prior to activating SBPs during the use of these acoustic sources, and for 30 minutes after use of these acoustic sources has ceased;

(4) During daylight hours when survey equipment is not operating, Dominion Energy must ensure that visual PSOs conduct, as rotation schedules allow, observations for comparison of sighting rates and behavior with and without use of the specified acoustic sources. Off-effort PSO monitoring must be reflected in the monthly PSO monitoring reports; and

(5) Any acoustic monitoring would complement visual monitoring efforts and would cover an area of at least the Level B harassment zone around each acoustic source.

(f) *Reporting.* Dominion Energy must comply with the following reporting measures:

(1) Prior to initiation of project activities, Dominion Energy must demonstrate in a report submitted to NMFS Office of Protected Resources that all required training for Dominion Energy personnel (including the vessel crews, vessel captains, PSOs, and PAM operators) has been completed.

(2) Dominion Energy must use a standardized reporting system during the effective period of this subpart and LOA. All data collected related to the CVOW–C project must be recorded using industry-standard softwares (*e.g.,* Mysticetus or a similar software) that is installed on field laptops and/or tablets. Dominion Energy must submit weekly (during foundation installation only), monthly, and annual reports as described in paragraphs (f)(5) through (8) of this section. For all monitoring efforts and marine mammal sightings, the following information must be collected and made available to NMFS:

(i) Date and time that monitored activity begins or ends;

(ii) Construction activities occurring during each observation period;

(iii) Watch status (*i.e.,* sighting made by PSO on/off effort, opportunistic, crew, alternate vessel/platform);

(iv) PSO who sighted the animal;

(v) Time of sighting;

(vi) Weather parameters (*e.g.,* wind speed, percent cloud cover, visibility);

(vii) Water conditions (*e.g.,* sea state, tide state, water depth);

(viii) All marine mammal sightings, regardless of distance from the construction activity;

(ix) Species (or lowest possible taxonomic level possible);

(x) Pace of the animal(s);

(xi) Estimated number of animals (minimum/maximum/high/low/best);

(xii) Estimated number of animals by cohort (*e.g.,* adults, yearlings, juveniles, calves, group composition, *etc.*);

(xiii) Description (*i.e.,* as many distinguishing features as possible of each individual seen, including length, shape, color, pattern, scars or markings, shape and size of dorsal fin, shape of head, and blow characteristics);

(xiv) Description of any marine mammal behavioral observations (*e.g.,* observed behaviors such as feeding or traveling) and observed changes in behavior, including an assessment of behavioral responses thought to have resulted from the specific activity;

(xv) Animal's closest distance and bearing from the pile being driven or

specified HRG equipment and estimated time entered or spent within the Level A harassment and/or Level B harassment zones;

(xvi) Activity at time of sighting (*e.g.,* vibratory installation/removal, impact pile driving, construction survey), use of any noise attenuation device(s), and specific phase of activity (*e.g.,* ramp-up of HRG equipment, HRG acoustic source on/off, soft-start for pile driving, active pile driving, *etc.*);

(xvii) Marine mammal occurrence in Level A harassment or Level B harassment zones;

(xviii) Description of any mitigation-related action implemented, or mitigation-related actions called for but not implemented, in response to the sighting (*e.g.,* delay, shutdown, *etc.*) and time and location of the action; and

(xix) Other human activity in the area.

(3) If a marine mammal is acoustically detected during PAM monitoring, the following information must be recorded and reported to NMFS:

(i) Location of hydrophone (latitude & longitude; in Decimal Degrees) and site name;

(ii) Bottom depth and depth of recording unit (in meters);

(iii) Recorder (model & manufacturer) and platform type (*i.e.,* bottom-mounted, electric glider, *etc.*), and instrument ID of the hydrophone and recording platform (if applicable);

(iv) Time zone for sound files and recorded date/times in data and metadata (in relation to Universal Coordinated Time (UTC); *i.e.,* Eastern Standard Time (EST) time zone is UTC–5);

(v) Duration of recordings (start/end dates and times; in International Organization for Standardization (ISO) 8601 format, yyyy–mm–ddTHH:MM:SS.sssZ);

(vi) Deployment/retrieval dates and times (in ISO 8601 format);

(vii) Recording schedule (must be continuous);

(viii) Hydrophone and recorder sensitivity (in dB re. 1 microPascal (μPa));

(ix) Calibration curve for each recorder;

(x) Bandwidth/sampling rate (in Hz);

(xi) Sample bit-rate of recordings; and,

(xii) Detection range of equipment for relevant frequency bands (in meters).

(4) Information required for each detection, the following information must be noted:

(i) Species identification (if possible);

(ii) Call type and number of calls (if known);

(iii) Temporal aspects of vocalization (date, time, duration, *etc.*; date times in ISO 8601 format);

(iv) Confidence of detection (detected, or possibly detected);

(v) Comparison with any concurrent visual sightings;

(vi) Location and/or directionality of call (if determined) relative to acoustic recorder or construction activities;

(vii) Location of recorder and construction activities at time of call;

(viii) Name and version of detection or sound analysis software used, with protocol reference;

(ix) Minimum and maximum frequencies viewed/monitored/used in detection (in Hz); and

(x) Name of PAM operator(s) on duty.

(5) Dominion Energy must compile and submit weekly reports to NMFS Office of Protected Resources that document the daily start and stop of all pile driving and HRG survey, the start and stop of associated observation periods by PSOs, details on the deployment of PSOs, a record of all detections of marine mammals (acoustic and visual), any mitigation actions (or if mitigation actions could not be taken, provide reasons why), and details on the noise attenuation system(s) used and its performance. Weekly reports are due on Wednesday for the previous week (Sunday–Saturday) and must include the information required under this section. The weekly report must also identify which turbines become operational and when (a map must be provided). Once all foundation pile installation is completed, weekly reports are no longer required.

(6) Dominion Energy must compile and submit monthly reports to NMFS (at *itp.potlock@noaa.gov* and *PR.ITP.monitoringreports@noaa.gov*) that include a summary of all information in the weekly reports, including project activities carried out in the previous month, vessel transits (number, type of vessel, and route), number of piles installed, all detections of marine mammals, and any mitigative action taken. Monthly reports are due on the 15th of the month for the previous month. The monthly report must also identify which turbines become operational and when (a map must be provided). Once foundation installation is complete, monthly reports are no longer required.

(7) Dominion Energy must submit a draft annual report to NMFS Office of Protected Resources no later than 90 days following the end of a given calendar year. Dominion Energy must provide a final report within 30 days following resolution of comments on the draft report. The draft and final reports must detail the following information:

(i) The total number of marine mammals of each species/stock detected and how many were within the designated Level A harassment and Level B harassment zones with comparison to authorized take of marine mammals for the associated activity type;

(ii) Marine mammal detections and behavioral observations before, during, and after each activity;

(iii) What mitigation measures were implemented (*i.e.,* number of shutdowns or clearance zone delays, *etc.*) or, if no mitigative actions was taken, why not;

(iv) Operational details (*i.e.,* days of impact and vibratory pile driving, days/amount of HRG survey effort, *etc.*);

(v) Any PAM systems used;

(vi) The results, effectiveness, and which noise attenuation systems were used during relevant activities (*i.e.,* impact pile driving);

(vii) Summarized information related to situational reporting; and

(viii) Any other important information relevant to the CVOW–C project, including additional information that may be identified through the adaptive management process.

(ix) The final annual report must be prepared and submitted within 30 calendar days following the receipt of any comments from NMFS on the draft report. If no comments are received from NMFS within 60 calendar days of NMFS' receipt of the draft report, the report must be considered final.

(8) Dominion Energy must submit its draft final report to NMFS Office of Protected Resources on all visual and acoustic monitoring conducted under the LOA within 90 calendar days of the completion of activities occurring under the LOA. A final report must be prepared and submitted within 30 calendar days following receipt of any NMFS comments on the draft report. If no comments are received from NMFS within 30 calendar days of NMFS' receipt of the draft report, the report shall be considered final.

(9) Dominion Energy must submit a SFV plan at least 180 days prior to the planned start of vibratory and/or impact pile driving. The plan must describe how Dominion Energy would ensure that the first three WTG monopile and OSS jacket (using pin piles) foundation installation sites selected for SFV are representative of the rest of the monopile and pin pile installation sites. In the case that these sites/scenarios are not determined to be representative of all other monopile/pin pile installation sites, Dominion Energy must include information on how additional sites/scenarios would be selected for SFV. The plan must also include methodology for collecting, analyzing,

and preparing SFV data for submission to NMFS. The plan must describe how the effectiveness of the sound attenuation methodology would be evaluated based on the results. Dominion Energy must also provide, as soon as they are available but no later than 48 hours after each installation, the initial results of the SFV measurements to NMFS in an interim report after each monopile for the first three piles and after each OSS jacket foundation using pin piles are installed.

(i) The SFV plan must also include how operational noise would be monitored. Dominion Energy must estimate source levels (at 10 m from the operating foundation) based on received levels measured at 50 m, 100 m, and 250 m from the pile foundation. These data must be used to identify estimated transmission loss rates. Operational parameters (*e.g.,* direct drive/gearbox information, turbine rotation rate) as well as sea state conditions and information on nearby anthropogenic activities (*e.g.,* vessels transiting or operating in the area) must be reported.

(ii) Dominion Energy must provide the initial results of the SFV measurements to NMFS in an interim report after each monopile and pin pile foundation installation for the first three monopiles piles and/or two full OSS foundations (consisting of 8 total pin piles) as soon as they are available, but no later than 48 hours after each installation. Dominion Energy must also provide interim reports on any subsequent SFV on foundation piles within 48 hours. The interim report must include hammer energies used during pile driving, peak sound pressure level (SPL_{pk}) and median, mean, maximum, and minimum root-mean-square sound pressure level that contains 90 percent of the acoustic energy (SPL_{rms}) and single strike sound exposure level (SEL_{ss}).

(iii) The final results of SFV of foundation installations must be submitted as soon as possible, but no later than within 90 days following completion of pile driving of monopiles and pin piles. The final report must include, at minimum, the following:

(A) Peak sound pressure level (SPL_{pk}), root-mean-square sound pressure level that contains 90 percent of the acoustic energy (SPL_{rms}), single strike sound exposure level (SEL_{ss}), integration time for SPL_{rms}, spectrum, and 24-hour cumulative SEL extrapolated from measurements at specified distances (*e.g.,* 750 m);

(B) All these levels must be reported in the form of:

(*1*) Median;

(*2*) Mean;

(*3*) Maximum; and

(*4*) Minimum;

(C) The SEL and SPL power spectral density and one-third octave band levels (usually calculated as decidecade band levels) at the receiver locations should be reported;

(D) The sound levels reported must be in median and linear average (*i.e.,* average in linear space), and in dB;

(E) A description of depth and sediment type, as documented in the Construction and Operation Plan (COP), at the recording and pile driving locations;

(F) Hammer energies required for pile installation and the number of strikes per pile;

(G) Hydrophone equipment and methods (*i.e.,* recording device, bandwidth/sampling rate, distance from the pile where recordings were made; depth of recording device(s));

(H) Description of the SFV PAM hardware and software, including software version used, calibration data, bandwidth capability and sensitivity of hydrophone(s), any filters used in hardware or software, any limitations with the equipment, and other relevant information;

(I) Local environmental conditions, such as wind speed, transmission loss data collected on-site (or the sound velocity profile), baseline pre- and post-activity ambient sound levels (broadband and/or within frequencies of concern);

(J) Spatial configuration of the noise attenuation device(s) relative to the pile;

(K) The extents of the Level A harassment and Level B harassment zones; and

(L) A description of the noise abatement system and operational parameters (*e.g.,* bubble flow rate, distance deployed from the pile, *etc.*) and any action taken to adjust the noise abatement system.

(10) Dominion Energy must submit situational reports if the following circumstances occur:

(i) If a North Atlantic right whale is observed at any time by PSOs or personnel on or in the vicinity of any project vessel, or during vessel transit, Dominion Energy must immediately report sighting information to the NMFS North Atlantic Right Whale Sighting Advisory System (866) 755–6622, through the WhaleAlert app (*https://www.whalealert.org/*), and to the U.S. Coast Guard via channel 16, as soon as feasible but no longer than 24 hours after the sighting. Information reported must include, at a minimum: time of sighting, location, and number of North Atlantic right whales observed.

(ii) When an observation of a large whale occurs during vessel transit, the following information must be recorded and reported to NMFS:

(A) Time, date, and location (latitude/longitude; in Decimal Degrees);

(B) The vessel's activity, heading, and speed;

(C) Sea state, water depth, and visibility;

(D) Marine mammal identification to the best of the observer's ability (*e.g.,* North Atlantic right whale, whale, dolphin, seal);

(E) Initial distance and bearing to marine mammal from vessel and closest point of approach; and

(F) Any avoidance measures taken in response to the marine mammal sighting.

(iii) If a North Atlantic right whale is detected via PAM, the date, time, location (*i.e.,* latitude and longitude of recorder) of the detection as well as the recording platform that had the detection must be reported to *nmfs.pacmdata@noaa.gov* as soon as feasible, but no longer than 24 hours after the detection. Full detection data and metadata must be submitted monthly on the 15th of every month for the previous month via the webform on the NMFS North Atlantic right whale Passive Acoustic Reporting System website at *https://www.fisheries.noaa.gov/resource/document/passive-acoustic-reporting-system-templates*.

(iv) In the event that the personnel involved in the activities defined in § 217.290(a) discover a stranded, entangled, injured, or dead marine mammal, Dominion Energy must immediately report the observation to the NMFS Office of Protected Resources (OPR), the NMFS Greater Atlantic Stranding Coordinator for the New England/Mid-Atlantic area (866–755–6622), and the U.S. Coast Guard within 24 hours. If the injury or death was caused by a project activity, Dominion Energy must immediately cease all activities until NMFS OPR is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the LOA. NMFS may impose additional measures to minimize the likelihood of further prohibited take and ensure MMPA compliance. Dominion Energy may not resume their activities until notified by NMFS. The report must include the following information:

(A) Time, date, and location (latitude/longitude; in Decimal Degrees) of the first discovery (and updated location information if known and applicable);

(B) Species identification (if known) or description of the animal(s) involved;

(C) Condition of the animal(s) (including carcass condition if the animal is dead);

(D) Observed behaviors of the animal(s), if alive;

(E) If available, photographs or video footage of the animal(s); and

(F) General circumstances under which the animal was discovered.

(v) In the event of a vessel strike of a marine mammal by any vessel associated with the CVOW–C project, Dominion Energy must immediately report the strike incident to the NMFS OPR and the NMFS Greater Atlantic Regional Fisheries Office (GARFO) within and no later than 24 hours. Dominion Energy must immediately cease all on-water activities until NMFS OPR is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the LOA. NMFS may impose additional measures to minimize the likelihood of further prohibited take and ensure MMPA compliance. Dominion Energy may not resume their activities until notified by NMFS. The report must include the following information:

(A) Time, date, and location (latitude/longitude; in Decimal Degrees) of the incident;

(B) Species identification (if known) or description of the animal(s) involved;

(C) Vessel's speed leading up to and during the incident;

(D) Vessel's course/heading and what operations were being conducted (if applicable);

(E) Status of all sound sources in use;

(F) Description of avoidance measures/requirements that were in place at the time of the strike and what additional measures were taken, if any, to avoid strike;

(G) Environmental conditions (*e.g.,* wind speed and direction, Beaufort sea state, cloud cover, visibility) immediately preceding the strike;

(H) Estimated size and length of animal that was struck;

(I) Description of the behavior of the marine mammal immediately preceding and following the strike;

(J) If available, description of the presence and behavior of any other marine mammals immediately preceding the strike;

(K) Estimated fate of the animal (*e.g.,* dead, injured but alive, injured and moving, blood or tissue observed in the water, status unknown, disappeared); and

(L) To the extent practicable, photographs or video footage of the animal(s).

§ 217.296 Letter of Authorization.

(a) To incidentally take marine mammals pursuant to this subpart, Dominion Energy must apply for and obtain an LOA.

(b) An LOA, unless suspended or revoked, may be effective for a period of time not to exceed February 4, 2029, the expiration date of this subpart.

(c) In the event of projected changes to the activity or to mitigation and monitoring measures required by an LOA, Dominion Energy must apply for and obtain a modification of the LOA as described in § 217.297.

(d) The LOA must set forth:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact (*i.e.,* mitigation) on the species, its habitat, and on the availability of the species for subsistence uses; and

(3) Requirements for monitoring and reporting.

(e) Issuance of the LOA must be based on a determination that the level of taking must be consistent with the findings made for the total taking allowable under the regulations of this subpart.

(f) Notice of issuance or denial of an LOA must be published in the **Federal Register** within 30 days of a determination.

§ 217.297 Modifications of Letter of Authorization.

(a) An LOA issued under §§ 217.292 and 217.296 or this section for the activity identified in § 217.290(a) shall be modified upon request by the applicant, provided that:

(1) The proposed specified activity and mitigation, monitoring, and reporting measures, as well as the anticipated impacts, are the same as those described and analyzed for this subpart (excluding changes made pursuant to the adaptive management provision in paragraph (c)(1) of this section); and

(2) NMFS determines that the mitigation, monitoring, and reporting measures required by the previous LOA under this subpart were implemented.

(b) For a LOA modification request by the applicant that include changes to the activity or the mitigation, monitoring, or reporting (excluding changes made pursuant to the adaptive management provision in paragraph (c)(1) of this section) that do not change the findings made for the regulations in this subpart or result in no more than a minor change in the total estimated number of takes (or distribution by species or years), NMFS may publish a notice of proposed LOA in the **Federal Register**, including the associated analysis of the change, and solicit public comment before issuing the LOA.

(c) An LOA issued under §§ 217.292 and 217.296 or this section for the activities identified in § 217.290(a) may be modified by NMFS under the following circumstances:

(1) Through adaptive management, NMFS may modify (including augment) the existing mitigation, monitoring, or reporting measures (after consulting with Dominion Energy regarding the practicability of the modifications), if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring.

(i) Possible sources of data that could contribute to the decision to modify the mitigation, monitoring, or reporting measures in an LOA are:

(A) Results from Dominion Energy's monitoring from the previous year(s);

(B) Results from other marine mammals and/or sound research or studies;

(C) Any information that reveals marine mammals may have been taken in a manner, extent, or number not authorized by the regulations in this subpart or subsequent LOA; and

(ii) If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS shall publish a notice of proposed LOA in the **Federal Register** and solicit public comment.

(2) If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in the LOA issued pursuant to §§ 217.292 and 217.296 or this section, an LOA may be modified without prior notice or opportunity for public comment. Notice would be published in the **Federal Register** within thirty days of the action.

§§ 217.298–217.299 [Reserved]

[FR Doc. 2023–08924 Filed 5–3–23; 8:45 am]

BILLING CODE 3510–22–P

FEDERAL REGISTER

Vol. 88 Thursday,

No. 86 May 4, 2023

Part III

Department of Energy

10 CFR Parts 429 and 431

Energy Conservation Program: Test Procedures for Walk-In Coolers and Walk-In Freezers; Final Rule

DEPARTMENT OF ENERGY

10 CFR Parts 429 and 431

[EERE–2017–BT–TP–0010]

RIN 1904–AD78

Energy Conservation Program: Test Procedures for Walk-In Coolers and Walk-In Freezers

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Final rule.

SUMMARY: The U.S. Department of Energy (DOE) is amending the test procedures for walk-in coolers and walk-in freezers to harmonize with updated industry standards, revise certain definitions, revise the test methods to more accurately represent field energy use, and to accommodate a wider range of walk-in cooler and walk-in freezer component equipment designs.

DATES: The effective date of this rule is June 5, 2023. The amendments will be mandatory for product testing starting October 31, 2023. Manufacturers will be required to use the amended test procedures until the compliance date of any final rule establishing amended energy conservation standards based on the newly established test procedures. At such time, manufacturers will be required to begin using the newly established test procedures.

The incorporation by reference of certain materials listed in the rule is approved by the Director of the Federal Register on June 5, 2023. The incorporation by reference of certain other material listed in the rule was approved by the Director of the Federal Register on January 27, 2017.

ADDRESSES: The docket, which includes **Federal Register** notices, public meeting attendee lists and transcripts, comments, and other supporting documents/materials, is available for review at *www.regulations.gov.* All documents in the docket are listed in the *www.regulations.gov* index. However, not all documents listed in the index may be publicly available, such as those containing information that is exempt from public disclosure.

A link to the docket web page can be found at *www.regulations.gov/docket/EERE-2017-BT-TP-0010.* The docket web page contains instructions on how to access all documents, including public comments, in the docket.

For further information on how to review the docket contact the Appliance and Equipment Standards Program staff at (202) 287–1445 or by email: *ApplianceStandardsQuestions@ee.doe.gov.*

FOR FURTHER INFORMATION CONTACT: Ms. Catherine Rivest, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE–5B, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 586–7335. Email: *ApplianceStandardsQuestions@ee.doe.gov.*

Mr. Matthew Schneider, U.S. Department of Energy, Office of the General Counsel, GC–33, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (240) 597–6265. Email: *matthew.schneider@hq.doe.gov.*

SUPPLEMENTARY INFORMATION: DOE maintains a previously approved incorporation by reference and incorporates by reference the following industry standards into part 431:

AHRI Standard 1250–2020, ''2020 Standard for Performance Rating of Walk-in Coolers and Freezers.''

Copies of AHRI 1250–2020 can be obtained from the Air-Conditioning, Heating, and Refrigeration Institute, 2111 Wilson Blvd., Suite 400, Arlington, VA 22201 or at *www.ahrinet.org.*

ANSI/ASHRAE 16–2016, ''Method of Testing for Rating Room Air Conditioners, Packaged Terminal Air Conditioners, and Packaged Terminal Heat Pumps for Cooling and Heating Capacity''.

ANSI/ASHRAE 23.1–2010, ''Methods of Testing for Rating the Performance of Positive Displacement Refrigerant Compressors and Condensing Units that Operate at Subcritical Temperatures of the Refrigerant''.

ANSI/ASHRAE 37–2009, ''Methods of Testing for Rating Electrically Driven Unitary Air-Conditioning and Heat-Pump Equipment''.

ANSI/ASHRAE 41.1–2013, ''Standard Method for Temperature Measurement''.

ANSI/ASHRAE 41.3–2014, ''Standard Methods for Pressure Measurement''.

ANSI/ASHRAE 41.6–2014, ''Standard Method for Humidity Measurement''.

ANSI/ASHRAE 41.10–2013, ''Standard Methods for Refrigerant Mass Flow Measurement Using Flowmeters''.

Copies of ANSI/ASHRAE 16–2016, ANSI/ASHRAE 23.1–2010, ANSI/ASHRAE 37–2009, ANSI/ASHRAE 41.1–2013, ANSI/ASHRAE 41.3–2014, ANSI/ASHRAE 41.6–2014, and ANSI/ASHRAE 41.10–2013, can be obtained from the American Society of Heating, Refrigerating and Air-Conditioning Engineers, 180 Technology Parkway NW, Peachtree Corners, GA 30092, or at *www.ashrae.org.*

ASTM C518–17, ''Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus''.

ASTM C1199–14, ''Standard Test Method for Measuring the Steady-State Thermal Transmittance of Fenestration Systems Using Hot Box Methods.''

Copies of ASTM C518–17 and ASTM C1199–14 can be obtained from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959, or at *www.astm.org.*

NFRC 102–2020 [E0A0], ''Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems''

Copies of NFRC 102–2020 can be obtained from the National Fenestration Rating Council, 6305 Ivy Lane, Suite 140, Greenbelt, MD 20770, or at *www.nfrc.org.*

See section IV.N of this document for a further discussion of these standards.

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I. Authority and Background

Walk-in coolers and walk-in freezers (collectively ''WICFs'' or ''walk-ins'') are included in the list of ''covered equipment'' for which the U.S. Department of Energy (DOE) is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6311(1)(G)) DOE's energy conservation standards and test procedures for WICFs are currently prescribed at subpart R of part 431 of title 10 of the Code of Federal Regulations (CFR). The following sections discuss DOE's authority to establish test procedures for WICFs and relevant background information regarding DOE's consideration of test procedures for this equipment.

A. Authority

The Energy Policy and Conservation Act, Public Law 94–163, as amended (''EPCA''),[1] authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part C of EPCA [2] established the Energy Conservation Program for Certain Industrial Equipment, which sets forth a variety of provisions designed to improve energy efficiency. This equipment includes WICFs, the subject of this document. (42 U.S.C. 6311(1)(G))

The energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA include definitions (42 U.S.C. 6311), test procedures (42 U.S.C. 6314), labeling provisions (42 U.S.C. 6315), energy conservation standards (42 U.S.C. 6313), and the authority to require information and reports from manufacturers (42 U.S.C. 6316).

The Federal testing requirements consist of test procedures that manufacturers of covered equipment must use as the basis for: (1) certifying to DOE that their equipment complies with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6316(a); 42 U.S.C. 6295(s)), and (2) making other representations about the efficiency of that equipment (42 U.S.C. 6314(d)). Similarly, DOE must use these test procedures to determine whether the equipment complies with relevant standards promulgated under EPCA. (42 U.S.C. 6316(a); 42 U.S.C. 6295(s))

Federal energy efficiency requirements for covered equipment established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6316(a) and 42 U.S.C. 6316(b); 42 U.S.C. 6297) DOE may, however, grant waivers of Federal preemption for particular State laws or regulations, in accordance with the procedures and other provisions of EPCA. (42 U.S.C. 6316(b)(2)(D))

Under 42 U.S.C. 6314, EPCA sets forth the criteria and procedures DOE must follow when prescribing or amending test procedures for covered equipment. EPCA requires that any test procedures prescribed or amended under this section must be reasonably designed to produce test results that reflect energy efficiency, energy use, or estimated annual operating cost of a given type of covered equipment during a representative average use cycle (as determined by the Secretary) and requires that test procedures not be unduly burdensome to conduct. (42 U.S.C. 6314(a)(2))

EPCA also requires that, at least once every 7 years, DOE evaluate test procedures for each type of covered equipment, including WICFs, to determine whether amended test procedures would more accurately or fully comply with the requirements for the test procedures to not be unduly burdensome to conduct and be reasonably designed to produce test results that reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle. (42 U.S.C. 6314(a)(1)) DOE considers this rulemaking to be in satisfaction of the 7-year review requirement specified in EPCA.

In addition, if the Secretary determines that a test procedure amendment is warranted, the Secretary must publish proposed test procedures in the **Federal Register**, and afford interested persons an opportunity (of not less than 45 days duration) to present oral and written data, views, and arguments on the proposed test procedures. (42 U.S.C. 6314(b)) If DOE determines that test procedure revisions are not appropriate, DOE must publish its determination not to amend the test procedures. (42 U.S.C. 6314(a)(1)(A)(ii))

B. Background

For measuring walk-in energy use, DOE has established separate test procedures for the principal components that may comprise a walk-in (*i.e.,* doors, panels, and refrigeration systems), with separate test metrics for each component. (10 CFR 431.304(b)) For walk-in doors and display panels, the efficiency metric is daily energy consumption, measured in kilowatt-hours per day (kWh/day), which accounts for the thermal conduction through the door or display panel and the direct and indirect electricity use of any electrical components associated with the door. *See* 10 CFR 431.304(b)(1)–(2) and 10 CFR part 431, subpart R, appendix A, ''Uniform Test Method for the Measurement of Energy Consumption of the Components of Envelopes of Walk-in Coolers and Walk-in Freezers'' (appendix A). The thermal transmittance through the door, which inputs into the calculation of thermal

[1] All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 116–260 (Dec. 27, 2020), which reflect the last statutory amendments that impact Parts A and A–1 of EPCA.

[2] For editorial reasons, upon codification in the U.S. Code, Part C was redesignated Part A–1.

conduction, is determined using National Fenestration Rating Council (NFRC) 100–2010, ''Procedure for Determining Fenestration U-factors'' (NFRC 100–2010), which is incorporated by reference at 10 CFR 431.303.

For walk-in non-display panels and non-display doors, in the final rule published on April 15, 2011, DOE codified in the CFR the standards established in EPCA based on the R-value metric,[3] expressed in units of (h-ft^2-°F/Btu),[4] which is calculated as the thickness of the panel in inches (in.) divided by the K-factor.[5] *See* 10 CFR 431.304(b)(3) and 10 CFR part 431, subpart R, appendix B, ''Uniform Test Method for the Measurement of R-Value for Envelope Components of Walk-in Coolers and Walk-in Freezers'' (appendix B). (*See also* 42 U.S.C. 6314(a)(9)(A)) The K-factor is calculated based on ASTM International (ASTM) C518, ''Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus'' (ASTM C518), which is incorporated by reference at 10 CFR 431.303. *Id.*

For walk-in refrigeration systems, the efficiency metric is the annual walk-in energy factor (''AWEF''), which is the ratio of the total heat, not including the heat generated by the operation of refrigeration systems, removed, in Btu, from a walk-in box during a one-year period of usage for refrigeration to the total energy input of refrigeration systems, in watt-hours, during the same period. AWEF is determined by conducting the test procedure set forth in American National Standards Institute (ANSI)/Air-Conditioning, Heating, and Refrigeration Institute (AHRI) Standard 1250 (I–P), ''2009 Standard for Performance Rating of Walk-in Coolers and Freezers'' (AHRI 1250–2009), which is incorporated by reference in 10 CFR 431.303 with certain adjustments specified in the CFR. *See* 10 CFR 431.304(b)(4) and 10 CFR part 431, subpart R, appendix C, ''Uniform Test Method for the Measurement of Net Capacity and AWEF of Walk-in Cooler and Walk-in Freezer Refrigeration Systems'' (appendix C). A manufacturer may also determine AWEF using an alternative efficiency determination method (AEDM). 10 CFR 429.53(a)(2)(iii). An AEDM enables a manufacturer to utilize computer-based or mathematical models for purposes of determining an equipment's energy use or energy efficiency performance in lieu of testing, provided certain prerequisites have been met. 10 CFR 429.70(f).

On August 5, 2015, DOE published its intention to establish a working group under the Appliance Standards and Rulemaking Federal Advisory Committee (ASRAC) to negotiate energy conservation standards to replace the standards established in the final rule published on June 3, 2014 (79 FR 32050, ''June 2014 ECS Final Rule''). 80 FR 46521. The established working group (ASRAC Working Group) assembled its recommendations into a term sheet[6] (Docket No. EERE–2015–BT–STD–0016, No. 56) that was presented to and approved by ASRAC on December 18, 2015 (ASRAC Term Sheet).

The ASRAC Term Sheet provided recommendations for energy conservation standards to replace standards vacated by the United States Court of Appeals for the Fifth Circuit in a controlling order issued August 10, 2015. It also included recommendations regarding definitions for a number of terms related to the WICF regulations, as well as recommendations to amend the test procedure that the ASRAC Working Group viewed as necessary to properly implement the energy conservation standards recommendations. Consequently, in 2016 DOE initiated both an energy conservation standards rulemaking and a test procedure rulemaking to implement these recommendations. The ASRAC Term Sheet also included recommendations for future amendments to the test procedures intended to make DOE's test procedures more fully representative of walk-in energy use.

On December 28, 2016, DOE published a final rule amending the WICF test procedures (''December 2016 Final Rule''), consistent with the ASRAC Term Sheet recommendations and including provisions to facilitate implementation of energy conservation standards for walk-in components. 81 FR 95758.

In 2020, AHRI published an updated industry test standard for walk-in refrigeration systems, ''2020 Standard for Performance Rating of Walk-in Coolers and Freezers,'' (AHRI 1250–2020) updating the existing AHRI standard ''AHRI 1250P (I–P)-2009.'' This new test procedure included updated calculations for the determination of default values for equipment with electric defrost and hot gas defrost. DOE published a final rule for hot gas defrost unit coolers on March 26, 2021 (March 2021 Final Rule), that amended the test procedure to rate hot gas defrost unit coolers using the modified default values for energy use and heat load contributions in AHRI 1250–2020. These amendments ensure that ratings for hot gas defrost unit coolers are consistent with those of electric defrost unit coolers. 86 FR 16027.

Under 10 CFR 431.401, any interested person may submit a petition for waiver from DOE's test procedure requirements. DOE will grant a waiver from the test procedure requirements if DOE determines either the basic model for which the waiver was requested contains a design characteristic that prevents testing of the basic model according to the prescribed test procedures, or the prescribed test procedures evaluate the basic model in a manner so unrepresentative of its true energy consumption characteristics as to provide materially inaccurate comparative data. 10 CFR 431.401(f)(2). DOE may grant the waiver subject to conditions, including adherence to alternate test procedures specified by DOE. *Id.* DOE has granted interim waivers and/or waivers to the manufacturers listed in Table I.1.

TABLE I.1—MANUFACTURERS WHO RECEIVED A TEST PROCEDURE WAIVER/INTERIM WAIVER FROM DOE

Manufacturer	Subject	Case No.	Waiver from appendix
Jamison Door Company	Percent Time Off (PTO) for Door Motors	2017–009	A
HH Technologies	PTO for Door Motors	2018–001	A

[3] The R-value is the thermal resistance, or the capacity of an insulated material to resist heat flow. *See* section 3.3.3 of ASTM C518. *See* 42 U.S.C. 6313(f)(1)(C) for the EPCA R-value requirements for non-display panels and doors.

[4] These symbols represent the following units of measurement—h: hour; ft^2: square foot; °F: degrees Fahrenheit; Btu: British thermal unit.

[5] The K-factor represents the thermal conductivity of a material, or its ability to conduct heat, in units of Btu-in/(h-ft^2-°F). *See* section 3.3.1 of ASTM C518.

[6] Appliance Standards and Rulemaking Federal Advisory Committee Refrigeration Systems Walk-in Coolers and Freezers Term Sheet, available at *www.regulations.gov/document/EERE-2015-BT-STD-0016-0056.*

TABLE I.1—MANUFACTURERS WHO RECEIVED A TEST PROCEDURE WAIVER/INTERIM WAIVER FROM DOE—Continued

Manufacturer	Subject	Case No.	Waiver from appendix
Senneca Holdings	PTO for Door Motors	2020–002	A
Hercules	PTO for Door Motors	2020–013	A
Heat Transfer Products Group, LLC (HTPG)	CO_2 Unit Coolers	2020–009	C
Hussmann Corporation (Hussmann)	CO_2 Unit Coolers	2020–010	C
KeepRite Refrigeration, Inc. (KeepRite)	CO_2 Unit Coolers	2020–014	C
RefPlus, Inc.	CO_2 Unit Coolers	2021–006	C
Refrigerated Solutions Group (RSG)	Multi-Circuit Single-Package Dedicated Systems	2022–004	C
Store It Cold	Single-Packaged Dedicated Systems	2018–002	C
CellarPro	Wine Cellar Refrigeration Systems	2019–009	C
Air Innovations	Wine Cellar Refrigeration Systems	2019–010	C
Vinotheque	Wine Cellar Refrigeration Systems	2019–011	C
Vinotemp	Wine Cellar Refrigeration Systems	2020–005	C
LRC Coil Company (LRC Coil)	Wine Cellar Refrigeration Systems	2020–024	C

On June 17, 2021, DOE published a request for information (RFI) to initiate a test procedure rulemaking for walk-ins (June 2021 RFI). 86 FR 32332. DOE published a notice of proposed rulemaking (NOPR) on April 21, 2022 (April 2022 NOPR), responding to comments received in response to the June 2021 RFI and presenting DOE's proposals to amend the WICFs test procedure—including amendments to eliminate the need for existing test procedure waivers—and establish a new test procedure at 10 CFR part 431, subpart R, appendix C1 (appendix C1), that would establish a new energy efficiency metric, AWEF2. 87 FR 23920. DOE held a public meeting related to the April 2022 NOPR on May 9, 2022.

DOE received comments in response to the April 2022 NOPR from the interested parties listed in Table I.2.

TABLE I.2—LIST OF COMMENTERS WITH WRITTEN SUBMISSIONS IN RESPONSE TO THE APRIL 2022 NOPR

Commenter(s)	Reference in this Final Rule	Comment No. in the docket	Commenter type
Air-Conditioning, Heating, & Refrigeration Institute	AHRI [7]	30	Trade Association.
Air-Conditioning, Heating, & Refrigeration Institute	AHRI-Wine [8]	30	Trade Association.
Anthony International	Anthony	31	Manufacturer.
Appliance Standards Awareness Project, American Council for an Energy-Efficient Economy, Natural Resources Defense Council, Northwest Energy Efficiency Alliance.	Efficiency Advocates	37	Efficiency Organizations.
Bally Refrigerated Boxes, Inc	Bally	40	Manufacturer.
Heat Transfer Products Group, LLC	HTPG	32	Manufacturer.
Hussmann Corporation	Hussmann	34, 38	Manufacturer.
KeepRite Refrigeration, Inc	KeepRite	36	Manufacturer.
Lennox International Inc	Lennox	35	Manufacturer.
National Refrigeration & Air Conditioning Canada Corp	National Refrigeration	39	Manufacturer.
North American Association of Food Equipment	NAFEM	33	Trade Association.
Pacific Gas and Electric Company, San Diego Gas & Electric, and Southern California Edison; collectively, the California Investor-Owned Utilities.	CA IOUs	42	Utility Association.
Refrigerated Solutions Group	RSG	41	Manufacturer.
Senneca Holdings	Senneca	26	Manufacturer.

Aparenthetical reference at the end of a comment quotation or paraphrase provides the location of the item in the public record.[9] To the extent that interested parties have provided written comments that are substantively consistent with any oral comments provided during the May 2022 public meeting, DOE cites the written comments throughout this final rule.

In response to the April 2022 NOPR, NAFEM commented that while the April 2022 NOPR was not inconsistent with DOE's Process Rule,[10] NAFEM supports the U.S. Small Business Administration Office of Advocacy request [11] that DOE reopen public comment on the 2021 Process Rule and

[7] AHRI submitted two comment documents to the docket. The first document in the docket includes AHRI's comments for traditional walk-in manufacturers (*i.e.,* medium- and low-temperature walk-in components). The associated file name in the docket is: AHRI Comments WICF NOPR EERE–2017–BT–TP–0010. These comments are referenced in this document as ''AHRI'' comments.

[8] AHRI submitted two comment documents to the docket. The second document in the docket includes AHRI's comments supporting wine cellar manufacturers (*i.e.,* high-temperature walk-in refrigeration systems). The associated file name in the docket is: Comments WICF NOPR EERE–2017–BT–TP–0010 Wine. These comments are referenced in this document as ''AHRI-Wine'' comments.

[9] The parenthetical reference provides a reference for information located in the docket of DOE's rulemaking to develop test procedures for walk-ins (Docket No. EERE–2017–BT–TP–0010, maintained at *www.regulations.gov*). The references are arranged as follows: (commenter name, comment docket ID number, page of that document).

[10] The term ''Process Rule'' refers to DOE's *Procedures, Interpretations, and Policies for Consideration of New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Certain Commercial/Industrial Equipment* at 10 CFR part 430, subpart C, appendix A.

[11] The U.S. Small Business Administration Office of Advocacy request is available at *cdn.advocacy.sba.gov/wp-content/uploads/2022/05/13104422/Comment-Letter-DOE-Process-Rule-Letter_5-13-22.pdf.*

concurrent proposed rulemaking.[12] (NAFEM, No. 33 at p. 2) The request referenced by NAFEM specifically refers to a National Academies of Sciences (''NAS'') report entitled ''Review of Methods Used by the U.S. Department of Energy in Setting Appliance and Equipment Standards.'' Given that the recommendations in the NAS report pertain to the processes by which DOE analyzes energy conservation standards, DOE will consider this comment in a separate rulemaking that includes all product categories.

II. Synopsis of the Final Rule

In this final rule, DOE is expanding the scope of its walk-in coolers and freezers test procedure to include carbon dioxide (CO_2) unit coolers, multi-circuit single-packaged dedicated systems, and ducted fan coil units. DOE has also determined that liquid-cooled refrigeration systems are within the scope of DOE coverage authority for walk-ins but is not adding an applicable test procedure at this time.

In this final rule, DOE is amending the definitions of walk-in cooler and walk-in freezer, door, door surface area, and single-packaged dedicated systems. DOE is also adding new definitions for door leaf, hinged vertical door, non-display door, roll-up door, sliding door, high-temperature refrigeration systems, ducted fan coil units, multi-circuit single-packaged dedicated systems, ducted multi-circuit single-packaged dedicated systems, attached split systems, detachable single-packaged dedicated systems, and CO_2 unit coolers.

In this final rule, DOE is revising appendix A as follows: (1) incorporate by reference NFRC 102–2020 as the applicable test procedure to determine door ''U-factor'' in place of NFRC 100–2010;[13] (2) provide further detail on and distinguish the area to be used for calculating a thermal load from U-factor and determining compliance with standards; (3) establish a percent time off (''PTO'') specific to door motors; and (4) reorganize appendix A so it is easier to follow.

Additionally, DOE is modifying appendix B to improve test representativeness and repeatability. Specifically, DOE is revising appendix B as follows: (1) reference the updated industry standard ASTM C518–17; (2) include more detailed provisions for determining measuring insulation thickness and test specimen thickness; (3) provide additional specifications for determining parallelism and flatness of a test specimen; and (4) reorganize appendix B as a step-by-step procedure to improve readability.

DOE is also including walk-in doors and walk-in panels in the list of covered equipment in the same sampling plan for enforcement testing that is used for walk-in refrigeration systems. (*See* 10 CFR 429.110(e)(2))

In this final rule, DOE is making two sets of changes to the refrigeration system test procedure. One set of changes is grouped into revisions to appendix C, and the other set of changes is included in a new appendix C1. DOE has determined that the changes to appendix C will not affect AWEF ratings and therefore will not require any retesting or recertification. These changes will be required starting 180 days after the test procedure final rule is published. DOE is also establishing a new metric, AWEF2, in the new appendix C1, which will require retesting and recertification. Use of appendix C1 will not be required until the compliance date of amended energy conservation standards for WICFs that DOE may ultimately adopt as part of a separate rulemaking.

DOE is revising appendix C, as follows:

(1) Specify refrigeration test room conditions.

(2) Provide for a temperature probe exception for small diameter refrigerant lines.

(3) Incorporate a test setup hierarchy of installation instructions for laboratories to follow when setting up a unit for test.

(4) Allow active cooling of the liquid line in order to achieve the required 3 °F subcooling at a refrigerant mass flow meter.

(5) Modify instrument accuracy and test tolerances.

(6) Address current test procedure waivers for CO_2 unit coolers tested alone and high-temperature unit coolers tested alone by incorporating amendments appropriate for this equipment.

The new appendix C1 includes these changes to appendix C, as well as the following additional changes:

(1) Adopt AHRI 1250–2020.

(2) Provide for testing single-packaged dedicated systems, detachable single-packaged dedicated systems; attached split systems; CO_2, variable-, two-, and multiple-capacity dedicated condensing units; indoor variable-, two-, and multiple-capacity matched pairs; matched refrigeration systems for high-temperature applications; and multi-circuit single-packaged dedicated systems.

(3) Add a single-packaged dedicated system refrigerant enthalpy test procedure.

(4) Add a new energy efficiency metric, AWEF2, to reflect the changes in the test procedure that would result in a significant change to energy use values compared to the AWEF metric in appendix C.

Table II.1 summarizes the current DOE test procedure, DOE's changes to the test procedure, the attribution for each proposed change, and the relevant test procedure appendix.

TABLE II.1—SUMMARY OF CHANGES IN TEST PROCEDURE RELATIVE TO CURRENT TEST PROCEDURE

WICF component(s)	DOE test procedure prior to amendment	Amended test procedure	Attribution	Relevant appendix
Doors and Display Panels.	Incorporates by reference NFRC 100–2010 for determining U-factor as part of determining energy consumption.	Incorporates by reference NFRC 102–2020 for determining U-factor and allows AEDMs to be used for determining energy consumption.	Reduce test burden	A
Doors and Display Panels.	Uses surface area of the door or display panel external to the walk-in to convert U-factor into a conduction load.	Requires that area of the aperture or surface area used to determine U-factor be used to convert U-factor into a conduction load.	Improve representative values	A

[12] DOE published a NOPR and request for comment on July 7, 2021, proposing changes to the Process Rule. 86 FR 35668.

[13] As discussed further in section III.C.1.b of this final rule, DOE is also adopting AEDM provisions for doors in 10 CFR 429.53 to allow calculation of door energy use representations.

TABLE II.1—SUMMARY OF CHANGES IN TEST PROCEDURE RELATIVE TO CURRENT TEST PROCEDURE—Continued

WICF component(s)	DOE test procedure prior to amendment	Amended test procedure	Attribution	Relevant appendix
Doors	Uses a PTO value of 25 percent for door motors (as they are considered "other electricity-consuming devices").	Establishes a PTO value of 97 percent specific to door motors.	Improve representative values and address inconsistent values across waivers granted.	A
Non-display Doors and Panels.	Incorporates by reference ASTM C518–04.	Incorporates by reference ASTM C518–17.	Update applicable industry test procedures.	B
Non-display Doors and Panels.	Does not include detailed provisions for determining and measuring total insulation thickness and test specimen thickness.	Includes detailed provisions for determining and measuring total insulation thickness and test specimen thickness.	Ensure test repeatability	B
Non-display Doors and Panels.	Requires that the test specimen meet a parallelism and flatness tolerance of ±0.03 inches but provides no guidance on measurement.	Provides specifications for determining parallelism and flatness of the test specimen.	Ensure test repeatability	B
Refrigeration Systems	Does not include guidance on test room conditioning.	Includes guidance on test room conditioning.	Ensure test repeatability	C
Refrigeration Systems	Does not include an allowance for measuring refrigerant temperatures with surface-mounted measuring instruments.	Includes an allowance for measuring refrigerant temperatures with surface-mounted measuring instruments for small diameter tubes.	Reduce test burden	C
Refrigeration Systems	Does not include guidance for unit charging or a setup condition hierarchy.	Includes guidance for unit charging and a setup condition hierarchy.	Ensure test repeatability	C
Refrigeration Systems	Does not include provisions for testing CO_2 unit coolers.	Includes provisions for testing CO_2 unit coolers.	Improve representative values	C
Refrigeration Systems	Does not include provisions for testing high-temperature unit coolers alone.	Includes provisions for testing high-temperature unit coolers alone.	Improve representative values	C
Refrigeration Systems	Incorporates by reference AHRI 1250–2009, ASHRAE 23.1–2010, and AHRI 420–2008.	Incorporates by reference AHRI 1250–2020, ASHRAE 37–2009, and ASHRAE 16–2016.	Update applicable industry test procedures.	C1
Refrigeration Systems	Tests single-packaged dedicated systems using the refrigerant enthalpy method for matched pairs.	Includes multiple methods for testing single-packaged dedicated systems.	Improve representative values	C1
Refrigeration Systems	Does not include provisions for testing attached split systems or detachable single-packaged dedicated systems.	Includes provisions for testing attached split systems or detachable single-packaged dedicated systems.	Improve representative values	C1
Refrigeration Systems	Does not include provisions for testing multi-circuit single-packaged dedicated systems.	Includes provisions for testing multi-circuit single-packaged dedicated systems.	Improve representative values	C1
Refrigeration Systems	Does not include provisions for testing ducted fan coil units.	Includes provisions for testing ducted fan coil units.	Improve representative values	C1
Refrigeration Systems	Does not include provisions for testing high-temperature matched-pair and single-packaged dedicated systems.	Includes provisions for testing high-temperature matched-pair and single-packaged dedicated systems.	Improve representative values	C1
Refrigeration Systems	Does not include provisions for testing of variable- and multiple-capacity dedicated condensing units nor variable- and multiple-capacity outdoor matched pairs.	Includes provisions for testing of variable, two-, and multiple-capacity dedicated condensing units and variable, two-, and multiple-capacity outdoor matched pairs.	Improve representative values	C1

DOE has determined that the amendments described in section III.C and III.E of this final rule would not alter the measured energy consumption of walk-in doors without motors or the R-value of walk-in non-display doors and non-display panels. Therefore, retesting or recertification would not be required solely as a result of DOE's adoption of the amendments to the test procedures. Additionally, DOE has determined that the amendments would not increase the cost of testing.

For walk-in doors with motors, DOE has determined that the amendments described in section III of this final rule would either not change the measured energy consumption or would result in a lower measured energy consumption and therefore, would not require retesting or recertification as a result of DOE's adoption of the amendments to the test procedures. New testing is only required if the manufacturer wishes to make claims using the new, more efficient rating. Additionally, DOE has determined the amendments would not increase the cost of testing for doors with motors.

DOE has also determined that the amendments to appendix C, described in section III.F of this final rule would not alter the measured efficiency of walk-in refrigeration systems and would not require retesting or recertification as a result of DOE's adoption of the amendments to the test procedures. Additionally, DOE has determined that the amendments would not increase the cost of testing.

Finally, DOE has determined that the provisions of the new appendix C1 described in section III.G of this final rule would alter the measured efficiency of walk-in refrigeration systems, in part because the amended test procedure adopts a different energy efficiency metric than in the current test procedure. However, the use of appendix C1 is not required for use until the compliance date of any amended energy conservation standards based on the test procedure in appendix C1. Additionally, DOE has determined that the provisions in appendix C1 will increase the cost of testing. DOE's estimation of costs is discussed in section III.K of this document.

The effective date for the amended test procedures adopted in this final rule is 30 days after publication of this document in the **Federal Register**. Representations of energy use or energy efficiency must be based on testing in accordance with the amended appendices A, B, and C test procedures beginning 180 days after the publication of this final rule. Manufacturers will be required to certify compliance using the new appendix C1 test procedures beginning on the compliance date of any final rule establishing amended energy conservation standards for walk-in refrigeration systems that are published after the effective date of this final rule.

III. Discussion

A. Scope and Definitions

This final rule applies to the test procedures for ''walk-in coolers and walk-in freezers.'' The following sections discuss DOE's consideration of the scope of the test procedures and relevant definitions.

1. Scope

The following sections discuss considerations and adopted changes regarding the scope of equipment covered by DOE's test procedures for walk-ins.

a. Liquid-Cooled Refrigeration Systems

A liquid-cooled refrigeration system rejects heat during the condensing process to a liquid, and the liquid transports the heat to a remote location. This contrasts with an air-cooled system, which rejects heat to ambient air during the condensing process. The current DOE test procedure for walk-in refrigeration systems, which incorporates by reference AHRI 1250–2009, does not address how to test liquid-cooled systems. Additionally, liquid-cooled dedicated condensing units are outside the scope of AHRI 1250–2020, being specifically excluded in Section 2.2.4. In the April 2022 NOPR, DOE tentatively determined that liquid-cooled refrigeration systems represent a small portion of the walk-in market, and thus DOE did not propose to amend its test procedures to include liquid-cooled refrigeration systems. 87 FR 23920, 23927.

In response to the April 2022 NOPR, the Efficiency Advocates and CA IOUs encouraged DOE to develop a test procedure for liquid-cooled refrigeration systems. (Efficiency Advocates, No. 37 at p. 3; CA IOUs, No. 42 at p. 5)

DOE recognizes the potential benefit of a test procedure for liquid-cooled walk-ins and the value that a reliable test procedure can provide to facilitate comparable representations of energy use for consumers. However, DOE maintains that liquid-cooled refrigeration systems represent a small portion of the walk-in market, and the potential for energy savings that could be realized through the development of a test procedure and corresponding energy conservation standards is likely limited at this time. Additionally, DOE is not aware of an industry test standard for liquid cooled walk-in refrigeration systems. Therefore, although liquid-cooled refrigeration systems are covered within the scope of the walk-in coolers and walk-in freezers definition, DOE is not adopting provisions specific to liquid-cooled refrigeration systems in its test procedure at this time.

b. Carbon Dioxide Systems

Currently, the DOE test procedure for walk-in refrigeration systems does not explicitly define scope based on refrigerant. *See* 10 CFR 431.301 and 431.304 and appendix C. DOE understands that the current test procedure, which is based on AHRI 1250–2009 (incorporated by reference, 10 CFR 431.303(b)), specifies test conditions that may not be consistent with the design and operation of carbon dioxide (''CO_2'') refrigeration systems (*i.e.,* although AHRI 1250–2009 does not specifically exclude CO_2 systems, the test method is not designed to accommodate such systems).[14]

As a result, DOE has granted waivers or interim waivers to manufacturers from appendix C, for specific basic models of CO_2 unit coolers.[15] The alternate test procedure granted in these waivers and DOE's amendments with respect to refrigeration systems utilizing CO_2 as a refrigerant are further discussed in section III.F.6 of this document.

In the April 2022 NOPR, DOE tentatively determined that walk-in refrigeration equipment utilizing CO_2 as a refrigerant meets the definition of a walk-in refrigeration system. In the April 2022 NOPR, DOE proposed test procedure provisions specific to (1) single-packaged dedicated systems and (2) unit cooler variants of CO_2 refrigeration systems. DOE did not propose test procedure provisions specific to CO_2-dedicated condensing units.[16]

In response to the April 2022 NOPR, the CA IOUs and HTPG stated that CO_2-dedicated condensing units are available on the market in the United States. (CA IOUs, No. 42 at p. 4; HTPG, No. 32 at p. 2) The CA IOUs, HTPG, and the Efficiency Advocates encouraged DOE to develop a test procedure for CO_2-dedicated condensing units. (CA IOUs, No. 42 at p. 4; HTPG, No. 32 at p. 2; Efficiency Advocates, No. 37 at p. 2)

DOE has conducted additional market research and determined that while CO_2 dedicated condensing units are currently available in the United States the market is small. In addition, due to COVID supply constraints, DOE has not been able to procure a CO_2 dedicated condensing unit to evaluate for testing. Therefore, DOE is not adopting a test procedure for CO_2 dedicated condensing units at this time. The test procedures for CO_2 unit coolers and single-packaged dedicated systems that use CO_2 as a refrigerant are discussed in

[14] The DOE test procedure for unit coolers requires testing with a liquid inlet saturation temperature of 105 °F and a liquid inlet subcooling temperature of 9 °F, as specified by Tables 15 and 16 of AHRI 1250–2009. However, CO_2 has a critical temperature of 87.8 °F; therefore, it does not coexist as saturated liquid and gas above this temperature. The liquid inlet saturation temperature of 105 °F and the liquid inlet subcooling temperature of 9 °F specified in appendix C, are not achievable by CO_2 unit coolers.

[15] HTPG Decision and Order, 86 FR 14887 (Mar. 19, 2021); Hussmann Decision and Order, 86 FR 24606 (May 7, 2021); KeepRite Decision and Order, 86 FR 24603 (May 7, 2021); RefPlus Interim Waiver, 86 FR 43633 (Aug. 10, 2021).

[16] As discussed in the April 2022 NOPR, DOE preliminarily found that, in the North American market, CO_2 is primarily used in large rack systems, and there do not appear to be any CO_2 dedicated condensing units available. Hence, DOE tentatively found that adopting a test procedure for CO_2 dedicated condensing units is currently not warranted. 87 FR 23920, 23928.

more detail in sections III.F.6 and III.G.2.g of this document, respectively.

c. Multi-Circuit Single-Packaged Dedicated Systems

DOE published an interim test procedure waiver for Refrigerated Solutions Group (RSG) on July 22, 2022. 87 FR 43808. In its petition for waiver and interim waiver, RSG stated that the current walk-in test procedure does not address multiple refrigeration circuits enclosed in a single unit. DOE has determined that refrigeration systems with multiple refrigeration circuits that share a single evaporator and a single condenser and that are used in walk-in applications meet the definition of ''walk-in cooler and walk-in freezer.'' Thus, DOE is adding a definition for ''multi-circuit single-packaged dedicated system,'' as discussed in section III.A.2.e of this document, and adopting a test procedure for such systems, as discussed in section III.G.2.f of this document.

d. Ducted Units

As discussed in the April 2022 NOPR, DOE is aware that some walk-in evaporators and/or dedicated condensing units are sold with provisions to be installed with ducting to circulate air between the walk-in and the refrigeration system; however, unit cooler and single-packaged systems sold for ducted installation are not addressed by either the definition for ''single-packaged dedicated system'' or ''unit cooler.'' 87 FR 23920, 23928. The current definition of ''single-packaged dedicated system'' specifies that such systems do not have ''any element external to the system imposing resistance to flow of the refrigerated air,'' and the definition of ''unit cooler'' specifies that such equipment does not have ''any element external to the cooler imposing air resistance.'' 10 CFR 431.302. As such, unit coolers and single-packaged dedicated systems sold for ducted installation are not addressed by either definition. In addition, the current test procedure does not include provisions for the setup of ductwork. While the definition of ''condensing unit'' does not exclude systems intended for ducted installation, the current test procedure also does not include provisions for setup of ductwork for these components.

DOE has granted waivers from the test procedure in appendix C, to CellarPro, Air Innovations, Vinotheque, and Vinotemp, and an interim waiver to LRC Coil, for walk-ins marketed for use as wine cellar refrigeration systems.[17] Relevant to the present discussion of scope, the specific basic models for which waivers have been granted include equipment sold as ducted units.

In this final rule, DOE is revising the single-packaged dedicated system definition to clarify that such systems may have provisions for ducted installation. DOE is adding a definition for ''ducted fan coil unit,'' the ducted equivalent of a unit cooler, as discussed in section III.A.2.d of this document. In doing so, DOE preserves the industry standard definition of a unit cooler while expanding the scope of the test procedure to ducted units. DOE is also adding provisions in the test procedures to address setup of ductwork and the external static pressure that it imposes on refrigeration system fans—all to improve the representativeness of the test procedure for ducted units. These test procedure revisions are addressed in section III.G.6 of this document.

2. Definitions

a. Walk-In Cooler and Walk-In Freezer

DOE currently defines the term ''walk-in cooler and walk-in freezer'' as an enclosed storage space refrigerated to temperatures, respectively, above, and at or below 32 degrees Fahrenheit, that can be walked into, and has a total chilled storage area of less than 3,000 square feet; however, the term does not include products designed and marketed exclusively for medical, scientific, or research purposes. 10 CFR 431.302. (*See also* 42 U.S.C. 6311(20))

To align the definition of walk-in cooler and walk-in freezer with the regulatory scheme adopted by DOE—which establishes separate test procedures and energy conservation standards for the principal components that make up a walk-in: panels, doors, and refrigeration systems—in the April 2022 NOPR, DOE proposed to amend the definition to specify that a walk-in may comprise these principal components. DOE requested comment on this proposed change. 87 FR 23920, 23928.

AHRI, Anthony, RSG, HTPG, KeepRite, Lennox, and National Refrigeration agreed with DOE's proposed changes to the definition of walk-in cooler and walk-in freezer. (AHRI, No. 30 at p. 2; Anthony, No. 31 at p. 1; RSG, No. 41 at p. 1; HTPG, No. 32 at p. 2; KeepRite, No. 36 at p. 1; Lennox, No. 35 at p. 2; National Refrigeration, No. 39 at p. 1) For the reasons discussed in the previous paragraph and the April 2022 NOPR, DOE is adopting the definition proposed in the April 2022 NOPR that ''walk-in cooler and walk-in freezer'' means an enclosed storage space, including but not limited to panels, doors, and refrigeration systems, refrigerated to temperatures, respectively, above, and at or below 32 degrees Fahrenheit that can be walked into, and has a total chilled storage area of less than 3,000 square feet; however, the terms do not include products designed and marketed exclusively for medical, scientific, or research purposes.

The Efficiency Advocates commented that refrigerated shipping containers should be within the scope of the walk-in test procedures. (Efficiency Advocates, No. 37 at p. 4) DOE notes that based on its initial research, neither the previous definition of walk-in cooler and walk-in freezer nor the amended definition adopted in this final rule would specifically exclude refrigerated shipping containers. However, DOE has not evaluated refrigerated shipping containers to determine if current walk-in test procedures would produce test results that reflect energy efficiency, energy use, or estimated operating costs during a representative average use cycle, without being unduly burdensome to conduct. Therefore, DOE has determined that refrigerated shipping containers are not currently subject to the DOE test procedure or energy conservation standards for WICFs. DOE may consider whether test procedures and energy conservation standards should be applied to refrigerated shipping containers in future rulemakings.

b. Doors

With respect to walk-ins, DOE defines a ''door'' as an assembly installed in an opening on an interior or exterior wall that is used to allow access or close off the opening and that is movable in a sliding, pivoting, hinged, or revolving manner of movement. For walk-in coolers and walk-in freezers, a door includes the door panel, glass, framing materials, door plug, mullions, and any other elements that form the door or part of its connection to the wall. 10 CFR 431.302.

(1) Door, Door Leaf, and Door Plug

In the April 2022 NOPR, DOE discussed that the current definition of ''door'' does not explicitly address that walk-in door assemblies may contain multiple door openings within one frame. 87 FR 23920, 23929. DOE also

[17] CellarPro Decision and Order, 86 FR 26496 (May 14, 2021); Air Innovations Decision and Order, 86 FR 23702 (May 4, 2021); Vinotheque Decision and Order, 86 FR 26504 (May 14, 2021); Vinotemp Decision and Order, 86 FR 36732 (July 13, 2021); LRC Coil Interim Waiver, 86 FR 47631 (Aug. 26, 2021).

noted that NFRC 100–2010 includes several defined terms relating to door components (*e.g.,* door leaf), which differ from the terms used in DOE's definition of ''door.'' *Id.* Additionally, certain stakeholders commented that they are unfamiliar with the term ''door plug,'' whereas others used it to describe different components of the door assembly. *Id.*[18]

In the April 2022 NOPR, DOE proposed to amend the definition of ''door'' to address doors with multiple openings within one frame, to include terminology that generally aligns with that used by the industry, and to remove use of the term ''door plug.'' *Id.* Specifically, DOE proposed to define ''door'' as an assembly installed in an opening on an interior or exterior wall that is used to allow access or close off the opening and that is movable in a sliding, pivoting, hinged, or revolving manner of movement. For walk-in coolers and walk-in freezers, a door includes the frame (including mullions), the door leaf or multiple door leaves (including glass) within the frame, and any other elements that form the assembly or part of its connection to the wall. DOE also proposed to define the term ''door leaf'' to mean the pivoting, rolling, sliding, or swinging portion of a door. *Id.*

Regarding the proposed definition of ''door,'' Senneca considered the proposed definition of ''door'' to refer to the door system (*i.e.,* includes the door leaf, frame, casings, header, tracks, and all necessary components and hardware). (Senneca, No. 26 at p. 1) AHRI commented that its members find DOE's current definition unclear and recommended that DOE not use what AHRI referred to as the ''single door'' interpretation. (AHRI, No. 30 at p. 2) DOE interprets AHRI's comment to mean that a door with multiple openings within a single frame should not be treated as a single basic model. DOE notes that the proposed definition of ''door'' is consistent with Senneca's understanding. Additionally, DOE notes that the proposed definition intends to clarify the definition of ''door'', particularly, that a ''door'' consists of a single frame and includes all parts of the door assembly attached to the single frame, including multiple door openings where applicable.

Anthony stated that the definition of ''door'' does not accurately reflect the use of the term ''door'' in the 2014 final rule engineering analysis spreadsheet.[19] (Anthony, No. 31 at pp. 1–3) Specifically, Anthony commented that when applying the same formula to a single door with multiple openings, there is a 20 to 30 percent reduction in energy allowance per door. *Id.* DOE notes that this comment refers to the representative units used to evaluate and adopt energy conservation standards in a final rule published on June 3, 2014 (79 FR 32050). DOE has determined that the representative units used in 2014 met the definition of ''door'' at the time of the analysis and would continue to meet the definition of ''door'' as amended by this final rule.—The amended definition of ''door'' adopted in this final rule provides additional clarity that a door contains a single frame with one or multiple door openings. Regarding the energy impacts of doors with multiple openings, DOE recommends that stakeholders provide feedback on the representative unit characteristics in response to the ongoing energy conservation standards rulemaking which is the appropriate venue to address such concerns (see docket EERE–2017–BT–STD–0009).

For the reasons discussed in the preceding paragraphs and the April 2022 NOPR, this final rule adopts the revised definition of ''door'' as proposed.

Bally agreed with the term ''door leaf'' and stated that the term as defined would be easily understood. (Bally, No. 40 at p. 1) AHRI stated that DOE's proposed definition of ''door leaf'' is clear. (AHRI, No. 30 at p. 2) Senneca commented that it considers ''door leaf'' to be a movable, insulated portion of the assembly. (Senneca, No. 26 at p. 10) DOE has concluded that Senneca's comment is consistent with the proposed definition of ''door leaf.'' This final rule adopts the definition of ''door leaf'' as proposed in the April 2022 NOPR. 87 FR 23920, 23929.

DOE did not receive any comments regarding its proposal to remove use of the term ''door plug.'' For the reasons discussed in the April 2022 NOPR, this final rule removes the term ''door plug'' as proposed. *Id.*

(2) Non-Display Door

DOE also proposed to define the term ''non-display door'' in the April 2022 NOPR. 87 FR 23920, 23930. Although the test procedures outlined in 10 CFR 431.304 and appendices A and B use the term ''non-display door,'' it is not currently defined. DOE proposed to define a ''non-display door'' as a door that is not a display door.[20]

In response to the April 2022 NOPR discussion of non-display doors, Hussmann stated that although its Heavy Duty Door products and ABC Beer Cave sliding door products are made largely of glass, it does not believe these doors meet the display door definition because they are designed to be used as passage doors (*i.e.,* passage of people). (Hussmann, No. 34 at p. 2) In response, DOE notes that the display door definition references the physical characteristics of the door (*i.e.,* the portion of surface area composed of glass or another transparent material), and is not contingent on door application. Any door(s) that meets this criteria is considered a display door, even those not necessarily designed for product display.

In this final rule, DOE is adopting the definition of ''non-display door'' as proposed in the April 2022 NOPR.

(3) Hinged Vertical Door, Roll-Up Door, and Sliding Door

In the April 2022 NOPR, DOE tentatively determined that differentiating walk-in doors based on opening characteristics would better align with industry terminology and proposed to define three terms to further differentiate all walk-in doors (including both display and non-display doors): ''hinged vertical door,'' ''roll-up door,'' and ''sliding door.'' 87 FR 23920, 23930.

DOE proposed to define ''hinged vertical door'' as a door with a door leaf (or leaves) with a hinge (or hinges) connecting one vertical edge of the door leaf (or leaves) to a frame or mullion of the door. This includes doors that swing open in one direction (*i.e.,* into or out of the walk-in) and free-swinging doors that open both into and out of the walk-in. 87 FR 23920, 23991.

DOE proposed to define ''roll-up door'' as a door that bi-directionally rolls open and closed in a vertical and horizontal manner and may include vertical jamb tracks. *Id.*

DOE proposed to define ''sliding door'' as a door having one or more manually operated or motorized door leaves within a common frame that slide horizontally or vertically. *Id.*

[18] In response to the June 2021 RFI, Anthony and AHRI stated that they were unfamiliar with the term ''door plug.'' (Anthony, No. 8 at pp. 1–2; AHRI, No. 11 at pp. 2–3) In response to the June 2021 RFI, Imperial Brown and Hussmann commented that they used the term ''door plug'' to describe different components of the door assembly. (Imperial Brown, No. 15 at p. 1; Hussmann, No. 18 at p. 3)

[19] Anthony is referring to the engineering analysis for display doors as part of the June 2014 ECS Final Rule, which can be found at *regulations.gov* under docket number EERE–2008–BT–STD–0015–0084.

[20] DOE defines ''display door'' as a door that (1) is designed for product display; or (2) has 75 percent or more of its surface area composed of glass or another transparent material. 10 CFR 431.302.

In the April 2022 NOPR, DOE requested feedback on the proposed definitions for ''hinged vertical door,'' ''roll-up door,'' and ''sliding door.'' *Id.* Senneca and AHRI agreed with DOE's proposed definitions. (Senneca, No. 26 at p. 1; AHRI, No. 30 at p. 2)

DOE recognizes that these definitions are not used in the adopted test procedure amendments. In the preliminary analysis for the walk-in standards energy conservation rulemaking, DOE stated that it was interested in differentiating its analysis by door opening characteristics. *See* page ES–36 of the preliminary analysis technical support document (EERE–2017–BT–STD–0009–0024). DOE is not adopting definitions for the terms ''hinged vertical door,'' ''roll-up door,'' and ''sliding door'' and will consider the potential adoption of these terms in the ongoing energy conservation standards rulemaking for WICFs.

As discussed in the April 2022 NOPR, DOE currently differentiates non-display doors by whether they are passage doors or freight doors. 87 FR 23920, 23929. A ''freight door'' is a door that is not a display door and is equal to or larger than 4 feet wide and 8 feet tall. 10 CFR 431.302. A ''passage door'' is a door that is not a freight or display door. *Id.* After reviewing comments submitted in response to the June 2021 RFI, DOE did not propose to amend the definition of freight door or passage door. DOE again received comments, however, on the definitions of freight and passage doors. 87 FR 23920, 23930.

Bally commented that specifying the way a door leaf is moved would not aid in defining a door nor clarify whether a non-display door is a passage or a freight door. (Bally, No. 40 at p. 1) Additionally, Bally disagreed with the current distinction of freight doors by size, stating that it manufactures doors with a width greater than or equal to 4 feet that are often the only door in the WICF; therefore, it considers these doors to be passage doors rather than freight doors. *Id.* Senneca stated that it views opening size as a determinant to whether a non-display door is designated as a passage or freight door and reiterated that a freight door has a width-in clear [21] (''WIC'') greater than or equal to 4 feet and a height-in-clear [22] (''HIC'') greater than or equal to 8 feet. (Senneca, No. 26 at p. 1)

DOE acknowledges that stakeholder comments demonstrate that factors other than size may be used to differentiate between a passage and freight door. However, DOE concludes that size is currently the most suitable way to differentiate between a passage door and a freight door. Therefore, DOE is not amending these definitions.

c. High-Temperature Refrigeration System

As mentioned previously, DOE has granted several manufacturers waivers and interim waivers from the current test procedure in appendix C for basic models of refrigeration systems marketed as wine cellar refrigeration systems (*see* section III.A.1.d of this document). These manufacturers stated that walk-ins used for wine storage are intended to operate at a temperature range of 45 to 65 °F and 50 to 70 percent relative humidity, rather than the 35 °F and less than 50 percent relative humidity test conditions prescribed in appendix C.

In the April 2022 NOPR, DOE proposed to define ''high-temperature refrigeration system'' as a walk-in refrigeration system that is not designed to operate below 45 °F. 87 FR 23920, 23930. DOE did not receive any feedback from stakeholders on the proposed definition; however, the CA IOUs commented that they support DOE including a test method for high-temperature unit coolers (CA IOUs, No. 42 at p. 6). DOE is adopting the definition for ''high-temperature refrigeration system'' as proposed in the April 2022 NOPR. Section III.G.6 provides further details of the corresponding test procedure provisions.

d. Ducted Fan Coil Unit and Ducted Single-Packaged Dedicated System

As discussed in the April 2022 NOPR, the definitions for single-packaged dedicated systems and unit coolers currently exclude ducted units. 87 FR 23920, 23931. As a part of the high-temperature refrigeration system waivers discussed in section III.A.2.c, DOE has granted waivers to Air Innovations, Vinotheque, CellarPro, and Vinotemp, and an interim waiver to LRC Coil, for walk-ins that are marketed as wine cellar refrigeration systems that are designed and marketed as ducted units.

To clarify that refrigeration systems with provision for ducted installation are included in the DOE test procedure, DOE proposed to adopt the new term ''ducted fan-coil unit,'' defined as an assembly including means for forced air circulation capable of moving air against both internal and non-zero external flow resistance and elements by which heat is transferred from air to refrigerant to cool the air, with provision for ducted installation. 87 FR 23920, 23931. DOE also proposed to revise the current ''single-packaged dedicated system'' definition to mean a refrigeration system (as defined in 10 CFR 431.302) that is a single-packaged assembly that includes one or more compressors, a condenser, a means for forced circulation of refrigerated air, and elements by which heat is transferred from air to refrigerant. *Id.*

In the April 2022 NOPR, DOE requested comment on its proposed definition for ''ducted fan coil unit'' and on the proposed modification to the definition of ''single-packaged dedicated system.'' *Id.* RSG agreed with the proposed definitions. (RSG, No. 41 at p. 1) AHRI and HTPG suggested separate definitions for ducted and non-ducted single-packaged dedicated systems. (AHRI, No. 30 at pp. 2–3; HTPG, No. 32 at p. 2)

After consideration of stakeholder comments, and to maintain consistency with industry terminology, DOE is adopting a separate definition for ''ducted single-packaged dedicated system'' that means a refrigeration system (as defined in 10 CFR 431.302) that is a single-packaged assembly designed for use with ducts, that includes one or more compressors, a condenser, a means for forced circulation of refrigerated air, and elements by which heat is transferred from air to refrigerant. As such, DOE is maintaining its current definition of a ''single-packaged dedicated system,'' and clarifying that it describes non-ducted units.

DOE received no feedback from stakeholders on the proposed definition for the new term ''ducted fan coil unit.'' DOE is adopting the definition for ''ducted fan coil unit'' as proposed in the April 2022 NOPR.

e. Multi-Circuit Single-Packaged Dedicated System

In the April 2022 NOPR, DOE proposed to define a ''multi-circuit single-packaged dedicated system'' as a single-packaged dedicated system (as defined in 10 CFR 431.302) that contains two or more refrigeration circuits that refrigerate a single stream of circulated air. DOE requested comment on this proposed definition. 87 FR 23920, 23931.

RSG agreed with the proposed definition. (RSG, No. 41 at p. 1) AHRI and HTPG suggested that the proposed definition is too specific and should be

[21] In their comment in response to the June 2021 RFI, Imperial Brown defined WIC as the clear opening width, typically from left frame jamb to right frame jamb. *See* EERE–2017–BT–TP–0010–0015 at p. 1.

[22] In their comment in response to the June 2021 RFI, Imperial Brown defined HIC as the clear opening height, typically from door sill to frame header. *See* EERE–2017–BT–TP–0010–0015 at p. 1.

broader. (AHRI, No. 30 at p. 3; HTPG, No. 32 at p. 3) However, AHRI and HTPG did not provide alternative definitions or other additional information that might support broadening the definition.

In this final rule, DOE is adopting the definition for ''multi-circuit single-packaged dedicated refrigeration system'' as proposed in the April 2022 NOPR.

As discussed in section III.A.2.d, DOE proposed to adopt the new term ''ducted fan-coil unit'' to clarify that refrigeration systems with provision for ducted installation are included in the DOE test procedure. 87 FR 23920, 23931. In response to the April 2022 NOPR, several stakeholders suggested creating separate definitions for ducted and non-ducted single-packaged dedicated systems. (AHRI, No. 30 at pp. 2–3; HTPG, No. 32 at p. 2) DOE's current definition for a ''single-packaged dedicated system'' applies only to non-ducted units. As discussed in section III.A.2.d, after consideration of stakeholder comments, and to maintain consistency with industry terminology, DOE is adopting a definition for ducted single-packaged dedicated systems Since ducted multi-circuit single-packaged dedicated systems are a derivative of ducted single-packaged dedicated systems, DOE is also defining ''ducted multi-circuit single-packaged dedicated systems'' to mean a ducted single-packaged dedicated system that contains two or more refrigeration circuits that refrigerate a single stream of circulated air. DOE believes these amendments are consistent with the intent of proposed changes in the April 2022 NOPR while being responsive to stakeholder feedback.

f. Attached Split System

As discussed in the April 2022 NOPR, DOE is aware of some refrigeration systems that are sold as matched pairs in which the dedicated condensing unit and unit cooler are permanently attached to each other with structural beams. 87 FR 23920, 23931. The DOE test procedure does not currently define such systems, nor does it provide any unique test provisions for them, thereby affecting the ability of manufacturers to provide test results reflecting the energy efficiency of this equipment during a representative average use cycle. DOE proposed to define ''attached split system'' as a matched-pair refrigeration system designed to be installed with the evaporator entirely inside the walk-in enclosure and the condenser entirely outside the walk-in enclosure, and the evaporator and condenser are permanently connected with structural members extending through the walk-in wall. *Id.*

In the April 2022 NOPR, DOE requested comment on the proposed definition for ''attached split system.'' *Id.* AHRI, HTPG, Hussmann, and Lennox agreed with the proposed definition. (AHRI, No. 30 at p. 3; HTPG, No. 32 at p. 3; Hussmann, No. 38 at p. 2; Lennox, No. 35 at p. 2)

In this final rule, DOE is adopting the proposed definition for ''attached split system.'' The provisions for testing such units are discussed in section III.G.4 of this document.

g. Detachable Single-Packaged System

As discussed in the April 2022 NOPR, DOE had tentatively determined that detachable single-packaged systems are a type of single-packaged dedicated system, and proposed to define ''detachable single-packaged system'' as a system consisting of a dedicated condensing unit and an insulated evaporator section in which the evaporator section is designed to be installed external to the walk-in enclosure and circulating air through the enclosure wall, and the condensing unit is designed to be installed either attached to the evaporator section or mounted remotely with a set of refrigerant lines connecting the two components. 87 FR 23920, 23931. The current DOE test procedure does not define such systems or provide testing provisions specific to this configuration.

In the April 2022 NOPR, DOE requested comment on the proposed definition for ''detachable single-packaged dedicated system.'' *Id.* AHRI, HTPG, Lennox, and RSG agreed with the proposed definition. (AHRI, No. 30 at p. 3; HTPG, No. 32 at p. 3; Lennox, No. 35 at p. 2; RSG, No. 41 at p. 1)

In this final rule, DOE is adopting the definition for ''detachable single-packaged dedicated system'' as proposed in the April 2022 NOPR.

h. CO_2 Unit Cooler

In the April 2022 NOPR, DOE proposed a test procedure for CO_2 unit coolers. 87 FR 23920, 23952. To clarify the scope of the proposed CO_2 unit cooler test procedure, DOE proposed to define a ''CO_2 unit cooler'' as one that includes a nameplate listing only CO_2 as an approved refrigerant. 87 FR 23920, 23932.

In the April 2022 NOPR, DOE requested comment on the proposed definition of CO_2 unit coolers. *Id.* AHRI, HTPG, Hussmann, Lennox, National Refrigeration, and RSG agreed with the proposed definition. (AHRI, No. 30 at p. 3; HTPG, No. 32 at p. 3; Hussmann, No. 38 at p. 2; Lennox, No. 35 at p. 2; National Refrigeration, No. 39 at p. 1; RSG, No. 41 at p. 1)

DOE also requested comment on whether any distinguishing features of CO_2 unit coolers exist that could reliably be used as an alternative approach to differentiate them from those unit coolers intended for use with conventional refrigerants. 87 FR 23920, 23932.

AHRI, HTPG, Lennox, and National Refrigeration all stated that they were not aware of any features that distinguish CO_2 unit coolers from those that use traditional refrigerants. (AHRI, No. 30 at p. 3; HTPG, No. 32 at p. 3; Lennox, No. 35 at p. 2; National Refrigeration, No. 39 at p. 1)

Given that stakeholders are not aware of any features that distinguish CO_2 unit coolers from those that use traditional refrigerants, this information must be provided on the unit in some way. Therefore, DOE is adopting the ''CO_2 unit cooler'' definition proposed in the April 2022 NOPR which requires a nameplate listing only CO_2 as an approved refrigerant for this equipment.

i. Hot Gas Defrost

In the April 2022 NOPR, DOE proposed that manufacturers of equipment with hot gas defrost installed at the factory may make market representations of performance with hot gas defrost activated, in addition to the current required calculation-based approach using default electric defrost parameters, and proposed a definition for ''hot gas defrost'' to clarify the scope of the voluntary representation. 87 FR 23920, 23932.

AHRI, HTPG, KeepRite, Lennox, National Refrigeration, and RSG all recommended changes to the definition as proposed. (AHRI, No. 30 at p. 3; HTPG, No. 32 at p. 3; KeepRite, No. 36 at p. 1; Lennox, No. 35 at p. 2; National Refrigeration, No. 39 at p. 1; RSG, No. 41 at p. 4) In particular, AHRI, HTPG, and Lennox stated that not all hot gas defrost systems are factory installed. (AHRI, No. 30 at pp. 3–4; HTPG, No. 32 at p. 3; Lennox, No. 35 at p. 2)

DOE intended for the voluntary hot gas defrost representation provisions proposed in the April 2022 NOPR to apply only to factory-installed hot gas defrost systems. 87 FR 23920, 23970. Considering the comments received, DOE recognizes that the proposed provisions would not apply to many hot gas defrost applications, thus negating the purpose and intent of DOE's proposal. Therefore, DOE has determined not to adopt provisions allowing representations of performance with hot gas defrost activated at this

time and consequently is not adopting a definition for ''hot gas defrost.''

B. Updates to Industry Standards

The current DOE test procedures for walk-in coolers and freezers incorporate the following industry test standards: NFRC 100–2010 into appendix A; ASTM C518–04 into appendix B; and AHRI 1250–2009, AHRI 420–2008,[23] and ASHRAE 23.1–2010 [24] into appendix C. The following sections discuss the industry standards DOE is incorporating by reference in this final rule and the relevant provisions of those industry standards that DOE is adopting.

1. Industry Standards for Determining Thermal Transmittance (U-Factor)

As discussed in the April 2022 NOPR, appendix A to subpart R of part 431 references NFRC 100–2010 as the method for determining the U-factor of doors and display panels, which references NFRC 102–2010. 87 FR 23920, 23932. NFRC has published updates to NFRC 102–2010, the most recent being NFRC 102–2020, which contains the following substantive changes from NFRC 102–2010:

1. Added a list of required calibrations for primary measurement equipment;
2. Added metering box wall transducer and surround panel flanking loss characterization and annual verification procedure;
3. Incorporated a calibration transfer standard continuous characterization procedure; and
4. Revised the provisions regarding air velocity distribution to be more specific to the type of fans used.

DOE proposed to adopt by reference in appendix A the following sections of NFRC 102–2020 in place of NFRC 100–2010 for determining U-factor:

- 2. Referenced Documents
- 3. Terminology
- 5. Apparatus
- 6. Calibration
- 7. Experimental Procedure (excluding 7.3. Test Conditions)
- 8. Calculation of Thermal Transmittance
- 9. Calculation of Standardized Thermal Transmittance
- Annex A1. Calibration Transfer Standard Design
- Annex A2. Radiation Heat Transfer Calculation Procedure
- Annex A4. Garage Panel and Rolling Door Installation

87 FR 23920, 23932.

DOE also proposed to incorporate by reference ASTM C1199–14, as it is referenced in NFRC 102–2020. Specifically, in the appendix A test procedure, DOE proposed to reference the following sections of ASTM C1199–14 as referenced through NFRC 102–2020: sections 2, 3, 5, 6, 7 (excluding 7.3), 8, 9, and annexes A1 and A2. DOE did not propose to reference any other sections of NFRC 102–2020 or ASTM C1199–14, as either they do not apply or they are in direct conflict with other test procedure provisions included in appendix A.

In this final rule, DOE is incorporating by reference NFRC 102–2020 and ASTM C1199–14 in appendix A as proposed in the April 2020 NOPR. DOE further discusses the reference to NFRC 102–2020 in place of NFRC 100–2010 and addresses stakeholder comments in section III.C.1 of this document.

2. Industry Standard for Determining R-Value

As discussed in the April 2022 NOPR, section 4.2 of appendix B to subpart R of part 431 references ASTM C518–04 [25] to determine the thermal conductivity, or K-factor, of panel insulation. 87 FR 23920, 23932. ASTM published a revision of ASTM C518 in July 2017 (''ASTM C518–17''). *Id.*

In the April 2022 NOPR, DOE tentatively determined that the updates in ASTM C518–17 do not substantively change the test method and do not impact test burden compared to ASTM C518–04. Therefore, DOE proposed to amend its test procedure for determining insulation R-value for non-display doors and panels by incorporating by reference ASTM C518–17. Specifically, in the test procedure in appendix B, DOE proposed to reference the following sections of ASTM C518–17:

- 2. Referenced Documents
- 3. Terminology
- 5. Apparatus
- 6. Calibration
- 7. Test Procedures (excluding 7.3. Specimen Conditioning)
- 8. Calculation
- Annex A1. Equipment Design

87 FR 23920, 23933.

DOE did not propose to reference any other sections of ASTM C518–17, as either they do not apply or they are in direct conflict with other test procedure provisions included in appendix B. Because ASTM C518–17 is an updated version of ASTM C518–04, DOE stated in the April 2022 NOPR that the test procedure for determining the K-factor would effectively remain based on ASTM C518–04 as specified by EPCA (42 U.S.C. 6314(a)(9)(A)(ii)).

In response to the April 2022 NOPR, Anthony supported the proposal to reference the latest version of the industry test procedure, ASTM C518–17. (Anthony, No. 31 at p. 3)

In this final rule, DOE is incorporating by reference the sections of ASTM C518–17 as proposed in the April 2022 NOPR.

3. Industry Standards for Determining AWEF

DOE's current test procedure for WICF refrigeration systems is codified in appendix C to subpart R of part 431 and incorporates by reference AHRI 1250–2009, AHRI 420–2008, and ASHRAE 23.1–2010. AHRI 1250–2009 is the industry test standard for walk-in cooler and freezer refrigeration systems, including unit coolers and dedicated condensing units sold separately, as well as matched pairs. 81 FR 95758, 95798.[26] The procedure describes the method for measuring the refrigeration capacity and the electrical energy consumption for a condensing unit and a unit cooler, including off-cycle fan and defrost subsystem contributions. Using the refrigeration capacity and electrical energy consumption, AHRI 1250–2009 provides a calculation methodology to compute AWEF, the applicable energy performance metric for refrigeration systems.

The DOE test procedure for walk-in refrigeration systems incorporates by reference the test procedure in AHRI 1250–2009 (excluding Tables 15 and 16), with certain enumerated modifications. *See* appendix C to subpart R of part 431.

In April 2020, AHRI published AHRI 1250–2020, which incorporates many of the modifications and additions to AHRI 1250–2009 that DOE currently prescribes in its test procedure at appendix C. It also includes test methods for unit coolers and dedicated condensing units tested alone, rather than incorporating by reference updated versions of AHRI 420–2008 and/or ASHRAE 23.1–2010. AHRI 1250–2020 also includes test methods for single-packaged dedicated systems.

The following sections discuss the amendments being adopted in appendix

[23] AHRI 420–2008, ''Performance Rating of Forced-Circulation Free-Delivery Unit Coolers for Refrigeration'' (''AHRI 420–2008'').

[24] ANSI/ASHRAE 23.1–2010, ''Methods of Testing for Rating the Performance of Positive Displacement Refrigerant Compressors and Condensing Units that Operate at Subcritical Temperatures of the Refrigerant'' (''ASHRAE 23.1–2010'').

[25] ASTM C518–04 is the version of the industry test procedure specified by EPCA as the basis for calculating the K-factor.

[26] Available at *www.ahrinet.org.*

C and appendix C1 with respect to the aforementioned industry test methods.

a. Appendix C

In the April 2022 NOPR, DOE proposed minor modifications to appendix C that improve test procedure accuracy and repeatability, while maintaining equivalent measurements of AWEF. 87 FR 23920, 23933. As discussed further in the section that follows, DOE also proposed to establish a new appendix C1 to subpart R that would incorporate substantive changes that would result in different measured values of efficiency, AWEF2, compared to appendix C. DOE proposed that the use of appendix C with the proposed amendments would be required 180 days after this test procedure final rule is published and would remain required for use until the compliance date of any future amended energy conservation standards based on appendix C1.

Within appendix C, DOE proposed to maintain reference to AHRI 1250–2009. DOE proposed to adopt certain instrument accuracy and test tolerances from AHRI 1250–2020 that would not change the measured AWEF value, as discussed further in section III.F.5 of this document.

DOE received no comments on its proposal to maintain appendix C, with modification, until the compliance date of any future amended energy conservation standards based on appendix C1.

In this final rule, DOE maintains the required use of appendix C, as amended by this final rule, including the incorporation by reference of AHRI 1250–2009, until the compliance date of any future amended energy conservation standards based on appendix C1.

b. Appendix C1

As discussed, in the April 2022 NOPR, DOE proposed to establish a new appendix C1 to subpart R that incorporates by reference AHRI 1250–2020. 87 FR 23920, 23933. DOE tentatively determined that the changes proposed in appendix C1 through the incorporation of AHRI 1250–2020 would increase the representativeness of the DOE test procedure for walk-ins. DOE also tentatively determined that several of the changes in AHRI 1250–2020 would change the measured AWEF value. These changes can be grouped into five categories: off-cycle tests, single-packaged dedicated systems, defrost calculations, variable capacity, and default unit cooler parameters. These changes and the comments received on these proposed changes are discussed in detail in section III.G. Since these changes would result in a change to measured AWEF, DOE proposed to establish a new metric called ''AWEF2.''

In the April 2022 NOPR, DOE proposed to incorporate AHRI 1250–2020 for use in appendix C1, with the following exclusions:

- Section 1 Purpose
- Section 2 Scope
- Section 9 Minimum Data Requirements for Published Ratings
- Section 10 Marking and Nameplate Data
- Section 11 Conformance Conditions
- Section C10.2.1.1 Test Room Conditioning Equipment under section C10—Defrost Calculation and Test Methods

87 FR 23920, 23933.

DOE proposed to exclude these sections of AHRI 1250–2020 because they either do not apply or conflict with other test procedure provisions included in appendix C1.

Further, DOE proposed to reference ASHRAE 16–2016 in appendix C1, as it is referenced in AHRI 1250–2020, with the following exclusions:

- Section 1 Purpose
- Section 2 Scope
- Section 4 Classifications
- Normative Appendices E–M
- Informative Appendices N–R

87 FR 23920, 23934.

DOE did not propose to reference these sections of ASHRAE 16–2016, as either they do not apply or they conflict with other test procedure provisions that are included as part of appendix C1.

Similarly, DOE proposed to reference ASHRAE 37–2009 in appendix C1, as it is referenced in AHRI 1250–2020, with the following exclusions:

- Section 1 Purpose
- Section 2 Scope
- Section 4 Classifications
- Informative Appendix A Classifications of Unitary Air-conditioners and Heat Pumps

Id.

DOE did not propose to reference these sections of ASHRAE 37–2009, as either they do not apply, or they conflict with other test procedure provisions that are included as part of appendix C1.

As discussed in the April 2022 NOPR, AHRI 1250–2020 incorporates many of the modifications and additions to AHRI 1250–2009 that DOE currently prescribes in its appendix C test procedure. *Id.* Since DOE proposed to adopt AHRI 1250–2020, DOE did not propose to carry over the sections listed in Table III.1 from appendix C to appendix C1.

TABLE III.1—LIST OF SECTIONS IN APPENDIX C NOT PROPOSED TO BE INCLUDED IN APPENDIX C1

Appendix C	Summary
Section 3.1.1	Modifies Table 1 (Instrumentation Accuracy) in AHRI 1250–2009.
Section 3.1.2	Provides guidance on electrical power frequency tolerances.
Section 3.1.3	States that in Table 2 of AHRI 1250–2009, the test operating tolerances and test condition tolerances for air leaving temperatures shall be deleted.
Section 3.1.4	States that in Tables 2 through 14 in AHRI 1250–2009, the test condition outdoor wet-bulb temperature requirement and its associated tolerance apply only to units with evaporative cooling.
Section 3.1.5	Provides tables to use in place of AHRI 1250–2009 Tables 15 and 16, which are excluded from the reference in 10 CFR 431.303.
Section 3.2.1	Provides specific guidance on how to measure refrigerant temperature.
Section 3.2.2	Removes the requirement to perform a refrigerant composition and oil concentration analysis.
Section 3.2.5	Provides insulation and configuration requirements for liquid and suction lines used for testing.
Section 3.3.1	Gives direction for how to test and rate unit coolers tested alone.
Section 3.3.2	Clarifies that the 2008 version of AHRI Standard 420 should be used for unit coolers tested alone.
Section 3.3.3	Modifies the allowable reduction in fan speed for off-cycle evaporator testing.
Section 3.4.1	Specifies that the 2010 version of ASHRAE 23.1 should be used and that ''suction A'' condition test points should be used when testing dedicated condensing units.
Section 3.4.2	Provides instruction on how to calculate AWEF and net capacity for dedicated condensing units.
Section 3.5	Provides guidance on how to rate refrigeration systems with hot gas defrost.

AHRI 1250–2020 does not incorporate all the modifications and additions to AHRI 1250–2009 that DOE currently prescribes in its test procedure. Therefore, DOE proposed that the modifications in sections 3.2.3, 3.3.4, 3.3.5, and 3.3.7 of appendix C be incorporated into appendix C1.

In response to the April 2022 NOPR, DOE received several general comments about the incorporation of AHRI 1250–2020 for use in appendix C1. AHRI and National Refrigeration commented that they disagreed with DOE aligning appendix C1 with AHRI 1250–2020 and requested further clarification on the proposal. (AHRI, No. 30 at p. 7; National Refrigeration, No. 39 at p. 2) Neither AHRI nor National Refrigeration provided detail about what specifically they disagreed with, or which aspects of DOE's proposal required further clarification.

In response to the April 2022 NOPR, HTPG requested details on the changes in the new appendix C1 that may impact the determination of AWEF for unit coolers and variable-capacity systems. (HTPG, No. 32 at p. 2) These topics are discussed in detail in sections III.G.7 and III.G.11 of this document, respectively.

As discussed in this section and in more detail in section III.G, DOE has concluded that the changes in AHRI 1250–2020 improve the representativeness of the walk-in refrigeration systems test procedure. Therefore, DOE is incorporating AHRI 1250–2020, ASHRAE 37–2009, ASHRAE 16–2016 for use in appendix C1 as proposed in the April 2022 NOPR.

c. Additional Amendments

AHRI 1250–2020 includes additional amendments that are inconsistent with AHRI 1250–2009 but are either not referenced in the DOE test procedure or serve to make aspects of the test procedure more explicit or clear. None of these changes impact measured AWEF. These additional amendments are discussed in the paragraphs below.

AHRI 1250–2020 added exclusions for liquid-cooled condensing systems in section 2.2.4 and excludes systems that use carbon dioxide, glycol, or ammonia as refrigerants in section 2.2.5. As mentioned previously, DOE is not incorporating section 2 of AHRI 1250–2020 into appendix C1.

AHRI 1250–2020 includes an updated list of references and the applicable versions of certain test standards in appendix A, ''References—Normative.'' DOE does not expect these changes to impact measured AWEF apart from ways discussed in section III.G. AHRI 1250–2020 added specifications for refrigerant temperature measurement locations for unit coolers tested alone, matched pairs, and dedicated condensing systems tested alone in sections C3.1.3.1, C3.1.3.2, and C3.1.3.3. DOE has determined that these specifications will not affect measured AWEF.

AHRI 1250–2020 revised section C7.5.1 to provide more detailed instructions for calculating system capacity beginning with measured temperatures and pressures instead of calculated enthalpies, which is what was done in AHRI 1250–2009. Section C7.5.1 also includes the determination of capacity from enthalpy calculation results. The addition of these sections provides clarity and further instruction but does not affect measured AWEF.

AHRI 1250–2009 included section C12, ''Method of Testing Condensing Units for Walk-in Cooler and Freezer Systems for Use in Mix-Match System Ratings,'' which referenced ASHRAE 23.1–2010. AHRI 1250–2020 now provides specific methods for testing dedicated condensing units tested alone. DOE has determined that the test procedure incorporated into AHRI 1250–2020 is the same as that in ASHRAE 23.1–2010 and therefore does not impact measured AWEF.

Section C13 of AHRI 1250–2009, ''Method of Testing Unit Coolers for Walk-in Cooler and Freezer Systems for Use in Mix-Match System Ratings,'' referenced AHRI 420–2008. AHRI 1250–2020 no longer references AHRI 420–2008 and instead outlines a method for unit coolers tested alone. DOE has determined that the test procedure incorporated into AHRI 1250–2020 is the same as that in ASHRAE AHRI 420–2008 and therefore does not impact measured AWEF. As a result, DOE is not incorporating by reference AHRI 420–2008 in new appendix C1.

C. Amendments to Appendix A for Doors

Appendix A provides test procedures for measuring walk-in envelope component energy consumption. Specifically, appendix A provides the test procedures to determine the U-factor, conduction load, and energy use of walk-in display panels and to determine the energy use of walk-in display doors and non-display doors (*see* section III.D for discussion of display panels).

In the April 2022 NOPR, DOE proposed several changes to appendix A specific to display doors and non-display doors. 87 FR 23920, 23936–23943. DOE determined that these changes would improve test representativeness and repeatability. DOE stated in the April 2022 NOPR that it did not expect the changes it proposed to have a substantive impact on measured energy consumption calculations for display doors or non-display doors, except in the case of testing doors with motors.

The following sections describe the modifications that DOE proposed to appendix A with respect to walk-in display and non-display doors.

1. Reference to NFRC 102–2020 in Place of NFRC 100–2010 and Alternative Efficiency Determination Methods for Doors

a. NFRC 102–2020 in Place of NFRC 100–2010

Appendix A references NFRC 100–2010 as the method for determining the U-factor of doors and display panels. NFRC 100–2010 allows for computational determination of U-factor by simulating U-factor using Lawrence Berkeley National Lab's (LBNL) WINDOW and THERM software, provided that the simulated value for the baseline product in a product line is validated with a physical test of that baseline product and the simulated value is within the accepted agreement with the physical test value as specified in section 4.7.1 of NFRC 100–2010.[27]

As discussed in the April 2022 NOPR, DOE is aware there has been limited success using the computational method in NFRC 100–2010 to simulate U-factors of non-display doors. 87 FR 23920, 23936–23937. Thus, DOE proposed to remove reference to NFRC 100–2010 (*i.e.,* the computational method) and instead reference NFRC 102–2020 (*i.e.,* the physical test method) for determining U-factor. *Id.* Consistent with that proposal, and with stakeholder concerns regarding test burden given the highly customizable nature of the walk-in door market, DOE also proposed to allow use of alternative efficiency determination methods (AEDMs) to determine the represented value of energy consumption of walk-in doors at 10 CFR 429.53(a)(3). 87 FR 23920, 23972.

In response, Bally stated that it looks forward to using AEDMs to rate its walk-in doors. (Bally, No. 40 at p. 5) RSG also agreed with the proposal to allow for AEDMs. (RSG, No. 41 at p. 2)

[27] Section 4.7.1 of NFRC 100–2010 requires that the accepted difference between the tested U-factor and the simulated U-factor be (a) 0.03 Btu/(h-ft^2-°F) for simulated U-factors that are 0.3 Btu/(h-ft^2-°F) or less, or (b) 10 percent of the simulated U-factor for simulated U-factors greater than 0.3 Btu/(h-ft^2-°F). This agreement must match for the baseline product in a product line. Per NFRC 100, the baseline product is the individual product selected for validation; it is not synonymous with ''basic model'' as defined in 10 CFR 431.302.

Hussmann noted that, although it is ''not pleased'' with the current NFRC 100–2010 test method, it does not support use of an AEDM because it believes rating with an AEDM creates an opportunity for ''approved non-compliance.'' (Hussmann, No. 34 at pp. 3–4)

DOE acknowledges Hussmann's concern but notes that rating a basic model with an AEDM does not excuse a manufacturer from complying with the relevant energy conservation standards. DOE has several requirements pertaining to AEDM records retention; the ability to provide analyses, conduct simulations, or conduct certification testing of basic models rated with the AEDM at DOE's request; and verification testing of an AEDM by DOE. These requirements can be found in 10 CFR 429.70(f)(3) through (5). DOE enforces all these requirements.

DOE notes that despite the limited success historically with using the computational method in NFRC 100–2010, to the extent that manufacturers have successfully used the simulation method in NFRC 100–2010 to produce accurate results, such results would be acceptable as an AEDM. AEDMs and the specific provisions DOE is adopting pertaining to AEDMs for doors are explained and discussed in the following section.

b. Alternative Efficiency Determination Methods for Doors

Pursuant to the requirements of 10 CFR 429.70, DOE may permit use of an AEDM in lieu of testing equipment for which testing burden may be considerable and for which that equipment's energy efficiency performance may be well predicted by such alternative methods. Although specific requirements vary by product or equipment, use of an AEDM entails development of a mathematical model that estimates energy efficiency or energy consumption characteristics of the basic model, as would be measured by the applicable DOE test procedure. The AEDM must be based on engineering or statistical analysis, computer simulation or modeling, or other analytic evaluation of performance data. A manufacturer must perform validation of an AEDM by demonstrating that the performance, as predicted by the AEDM, agrees with the performance as measured by actual testing in accordance with the applicable DOE test procedure. The validation procedure and requirements, including the statistical tolerance, number of basic models, and number of units tested vary by product or equipment.

Once developed and validated, an AEDM may be used to rate and certify the performance of untested basic models in lieu of physical testing. Use of an AEDM for any basic model is always at the option of the manufacturer. One potential advantage of AEDM use is that it may free a manufacturer from the burden of physical testing. One potential risk is that the AEDM may not perfectly predict performance, and the manufacturer could be found responsible for having an invalid rating for the equipment in question or for having distributed a noncompliant basic model. The manufacturer, by using an AEDM, bears the responsibility and risk of the validity of the ratings.

For walk-ins, DOE currently permits the use of AEDMs for refrigeration systems only. 10 CFR 429.70(f). As discussed previously, DOE proposed to allow the use of AEDMs for rating walk-in doors in the April 2022 NOPR. 87 FR 23920, 23972. Concurrent with this proposal, DOE proposed a number of provisions specific to the validation and use of an AEDM. First, DOE proposed to include walk-in door validation classes at 10 CFR 429.70(f)(2)(iv) and to require that two basic models per validation class be tested using the proposed test procedure in appendix A, which is consistent with the number of basic models required to be tested per validation class for walk-in refrigeration systems. *Id.*

Second, DOE proposed to include a 5 percent individual model tolerance, which aligns with the individual model tolerance applicable to walk-in refrigeration systems, to validate the measured energy consumption result of an AEDM with the appendix A test result at 10 CFR 429.70(f)(2)(ii). *Id.* The individual model tolerance is used to validate the AEDM. This means that when validating the AEDM for use, the predicted daily energy consumption for each model calculated by applying the AEDM may not be more than 5 percent less than the daily energy consumption determined from the corresponding test of the model.

DOE also proposed that an AEDM for doors can only simulate or model characteristics of the door that are required to be tested by the DOE test procedure—*i.e.,* for the doors test procedure, the AEDM would be used to simulate or model the U-factor, which is the only part of the appendix A test procedure that is not a calculation. The AEDM cannot be used to simulate or model the energy consumption due to conduction thermal load, or the direct and indirect electrical energy consumption of electricity-consuming devices sited on the door—those must be calculated using the appendix A test procedure. However, when validating the AEDM, the comparison between a door that has been physically tested versus a door that has been modeled or simulated must be done using the complete metric (*i.e.,* total daily energy consumption). In other words, the AEDM can only be used to determine the U-factor, but the total daily energy consumption using an AEDM must be carried out using the calculations in appendix A for the energy consumption due to conduction thermal load, and the direct and indirect electrical energy consumption. Then, the validation of an AEDM would compare the energy consumption calculated using a simulated U-factor with the energy consumption calculated using a tested U-factor.

Lastly, DOE proposed to include a 5 percent tolerance applicable to the maximum daily energy consumption metric for AEDM verification testing conducted by DOE at 10 CFR 429.70(f)(5)(vi), which aligns with the tolerance applicable to AWEF of walk-in refrigeration systems. *Id.* DOE may randomly select and test a single unit of a basic model to assess whether a basic model is in compliance with the applicable energy conservation standards pursuant to 10 CFR 429.104, which extends to all DOE covered products and equipment, including those certified using an AEDM. As part of the AEDM requirements, DOE may use the test data from an assessment test for a given model to verify the certified rating determined by an AEDM. This is called verification testing. *See* 10 CFR 429.70(f)(5). For doors using an energy consumption metric, the result from a DOE verification test must be less than or equal to the certified rating multiplied by (1 plus the applicable tolerance); *i.e.,* the DOE verification test result must be less than or equal to 105 percent of the certified rating.

In the April 2022 NOPR, DOE requested comment on the specific proposals pertaining to the validation and use of AEDMs for doors. *Id.* RSG agreed with the proposals. (RSG, No. 41 at p. 2)

Anthony disagreed with DOE removing the reference to NFRC 100–2010 for NFRC 102–2020 and allowing AEDMs because it believes an AEDM would require more testing and result in an increased financial and physical burden on manufacturers without achieving an additional energy benefit. (Anthony, No. 31 at pp. 3, 8–9) Additionally, Anthony stated that if NFRC 100–2010 is able to be used as an AEDM, the application of the 5 percent

tolerance on the energy consumption metric, E_{dd}, would conflict with the NFRC 100–2010 standard without achieving an additional energy benefit. *Id.* AHRI commented that the AEDM strategy with respect to U-factor is unclear and requested clarification of what the proposed 5 percent model tolerance applies to. (AHRI, No. 30 at p. 11)

DOE is clarifying that to use an AEDM, the manufacturer must first validate the AEDM. To validate the AEDM, the manufacturer must select at least the minimum number of basic models for each validation class (specified in table 1 to 10 CFR 429.70(f)(2)(iv)(A)) and physically test a single unit of each basic model. Thus, for a single validation class, where DOE proposed two basic models be tested per validation class, only two physical tests would be required, although more testing may be conducted at the manufacturer's discretion. The manufacturer would be required to conduct the physical U-factor tests according to NFRC 102–2020 referenced by appendix A and carry out the energy consumption calculations as done in appendix A. For the AEDM, the manufacturer would model or simulate the U-factor using a method of their choice, and then carry out the energy consumption calculations as done for the physical test, only deviating by using the simulated U-factor in the calculations. All other parts of the energy consumption calculations shall be done according to appendix A and may not be modeled. To validate the AEDM, the energy consumption output using the physical test must be compared with the energy consumption output using the AEDM for each basic model used for validation. If the output using the AEDM is lower than the physical test output by more than the individual model tolerance (*i.e.,* 5 percent), then the AEDM is not valid. If the output using the AEDM is greater than or equal to 95 percent of the output using physical testing and meets the standard for at least two basic models, then the AEDM has been validated for that validation class.

To illustrate the minimum number of physical tests required, consider an example of a display door manufacturer that produces models in two validation classes: medium-temperature and low-temperature. This manufacturer would need to, at a minimum, physically test the U-factor and calculate the energy consumption of two basic models per validation class, thus requiring a total of four physical tests: two for the medium-temperature display door validation class and two for the low-temperature display door validation class. The manufacturer would use the U-factor test results to calculate the total daily energy consumption each door. Then, the manufacturer would use their AEDM to model or simulate the U-factor of each door and calculate each door's total daily energy consumption. Each basic model's simulated and tested total daily energy consumption results would be compared using the tolerance of 5 percent in order to validate the AEDM. DOE stresses that this 5 percent tolerance used to validate the AEDM would only apply to the comparison of tested and simulated energy consumption for the minimum number of models physically tested for validation of the AEDM. If the AEDM is validated, the manufacturer could then use the AEDM to rate the remainder of the basic models it manufacturers in those validation classes. The 5 percent tolerance would not be used for any models simulated without a physical test because the AEDM was validated and thus no physical test would be further required.

DOE emphasizes that allowing use of an AEDM would provide manufacturers with the flexibility to use an alternative method (*i.e.,* besides NFRC 100–2010) that yields the best agreement with a physical test for their doors. Additionally, DOE notes that the change in test burden associated with the use of an AEDM is dependent on a manufacturer's product offerings. If a manufacturer does not have success with NFRC 100–2010 and is currently required to physically test all basic models, the AEDM option may reduce the test burden by requiring only two basic models per validation class to be tested. DOE is aware there has been limited success using the computational method in NFRC 100–2010 to simulate U-factors of non-display doors. Therefore, DOE expects a reduction of test burden across the industry since allowing AEDMs generally provides manufacturers, particularly those that manufacture non-display doors, the flexibility to use an alternate method that works best for them and meets the AEDM criteria established by DOE. However, if a manufacturer currently has success using NFRC 100–2010, there could be an increase in test burden, but only if the manufacturer currently validates the use of the simulation method with less than two basic models per validation class. Test burden and costs are discussed further in section III.K.1 of this document. The inclusion of AEDM provisions would enable manufacturers to continue using NFRC 100–2010, provided that manufacturers meet the AEDM requirements in 10 CFR 429.53 and 429.70(f). Therefore, DOE is removing reference to NFRC 100–2010 from its test procedure and is instead referencing NFRC 102–2020 and adopting provisions that allow manufacturers to use an AEDM, as proposed in the April 2022 NOPR.

c. Exceptions to the Industry Test Method for Determining U-Factor

Section 5.3 of appendix A references NFRC 100–2010 for determining U-factor, and section 5.3(a) of appendix A specifies four exceptions to that industry standard. The first exception implements a tolerance on the surface heat transfer coefficients (no such tolerance is specified in NFRC 100–2010); specifically, that the average surface heat transfer coefficients during a test must be within ± 5 percent of the values specified through NFRC 100–2010 in ASTM C1199. The second and third exceptions modify the cold and warm-side conditions from the standard conditions prescribed in NFRC 100–2010. The fourth exception specifies the direct solar irradiance be 0 Btu/(h-ft^2).

Sections 6.2.3 and 6.2.4 of ASTM C1199 specify the standardized heat transfer coefficients and their tolerances as part of the procedure to set the surface heat transfer conditions of the test facility using the Calibration Transfer Standard (''CTS'') test. The warm-side surface heat transfer coefficient must be within ± 5 percent of the standardized warm-side value of 1.36 Btu/(h-ft^2-°F), and the cold-side surface heat transfer coefficient must be within ± 10 percent of the standardized cold-side value of 5.3 Btu/(h-ft^2-°F) during the CTS test (ASTM C1199, sections 6.2.3 and 6.2.4). ASTM C1199 does not require that the measured surface heat transfer coefficients match or be within a certain tolerance of standardized values during the official sample test—although test facility operational (*e.g.,* cold-side fan settings) conditions would remain identical to those set during the CTS test. ASTM C1199 also does not require measurement of the warm-side surface temperature of the door. Rather, this value is calculated based on the radiative and convective heat flows from the test specimen's surface to the surroundings, which are driven by values determined from the calibration of the hot box using the CTS test (*e.g.,* the convection coefficient). *See* ASTM C1199, section 9.2.1.

As discussed in the April 2022 NOPR, DOE has found that obtaining the standardized heat transfer values within the ± 5 percent tolerance specified in section 5.3(a)(1) of appendix A on the

warm side and cold side may not be achievable depending on the thermal transmittance through the door. 87 FR 23920, 23937. In the April 2022 NOPR, DOE proposed to remove the exceptions specified in section 5.3(a)(1) of appendix A regarding the surface heat transfer coefficients and the tolerances on them during testing.

DOE did not receive any comments on its proposal to remove the exceptions specified in section 5.3(a)(1) of appendix A.

For the reasons discussed in the preceding paragraphs and the April 2022 NOPR, DOE is removing the exceptions listed in section 5.3(a)(1) of appendix A regarding the surface heat transfer coefficients and the tolerances on them during testing. 87 FR 23920, 23937–23938. By removing these exceptions, the requirements pertaining to the surface heat transfer coefficients would apply as they are specified in the referenced industry standards.

Relatedly, Anthony commented on the specific values used to define the surface heat transfer coefficients. Specifically, Anthony commented that it disagrees with the current surface heat transfer coefficient applied to the cold side during testing and simulation of U-factors for display doors. (Anthony, No. 31 at pp. 4–5) Anthony presented data from field testing at several different public locations showing that the actual measured wind speed is on average 84 percent less than specified in NFRC 102–2020 and NFRC 100–2010, as well as a measured wind speed from their test cell showing an average of 1.1 miles per hour (''mph''). Anthony recommended that DOE adopt a cold-side heat transfer coefficient corresponding to a conservative wind speed value of 5 mph. *Id.*

DOE notes that deviating from the existing surface heat transfer coefficients would require test labs to change their test chamber calibration procedures and would require manufacturers to retest and rerate all envelope components subject to the energy consumption test procedure in appendix A. DOE has evaluated the data and information provided by Anthony but is unable to establish at this time whether such changes to the heat transfer coefficient would be nationally representative, nor the extent to which any such improvement in representativeness of the test result would outweigh the test burden associated with changing the heat transfer coefficient value. DOE has therefore determined it is not appropriate to amend the heat transfer coefficients in this final rule.

Additionally, section 5.3(a)(1) of appendix A currently specifies a direct solar irradiance [28] of 0 Btu/h-ft^2. Consistent with DOE's removal of its reference to NFRC 100–2010, DOE is removing the requirement of direct solar irradiance of 0 Btu/h-ft^2 in section 5.3(a)(4) of appendix A. DOE received no comment on solar irradiance in response to the April 2022 NOPR and notes that the removal of this requirement would not affect measured values. 87 FR 23920, 23938.

2. Additional Definitions

a. Surface Area for Determining Compliance With Standards

Surface area of a door is used in two ways in the regulations at subpart R of 10 CFR431: (1) to convert the tested U-factor of the door into a conduction load as part of the energy consumption test procedure, and (2) to determine compliance with the maximum energy consumption standards. As currently defined in section 3.4 of appendix A, surface area means the area of the surface of the walk-in component that would be external to the walk-in cooler or walk-in freezer as appropriate. The definition does not provide detail on how to determine the boundaries of the walk-in door from which height and width are determined to calculate surface area. Additionally, the definition does not specify if these measurements are to be strictly in-plane with the surface of the wall or panel that the walk-in door would be affixed to, or if troughs and other design features on the exterior surface of the walk-in door should be included in the measured surface area.

In the April 2022 NOPR, DOE proposed that the surface area bounds of both display doors and non-display doors be the outer edge of the frame. 87 FR 23920, 23939. DOE proposed to change the term from ''surface area'' to ''door surface area,'' and to define the term as meaning the product of the height and width of a walk-in door measured external to the walk-in. *Id.* Under this definition, the height and width dimensions would be perpendicular to each other and parallel to the wall or panel of the walk-in to which the door is affixed, the height and width measurements would extend to the edge of the frame and frame flange (as applicable) to which the door leaf is affixed, and the surface area of a display door and non-display door would be represented as A_{dd} and $A_{nd,}$ respectively.

In addition, DOE proposed to move the defined term from the test procedure in appendix A to the definition section in 10 CFR 431.302 with the other definitions that are broadly applicable to subpart R. *Id.* DOE proposed this move because, as revised and in light of the following section III.C.2.b of this document, this term would no longer be used to convert the tested U-factor of the door into a conduction load as part of the energy consumption test procedure and is only relevant for determining compliance with the energy conservation standards. *Id.*

Anthony agreed with the proposed revision of using the external frame dimensions, which includes the flange, for determining A_{dd} and for determining the maximum energy consumption standard. (Anthony, No. 31 at p. 5)

Bally suggested that the surface area definition should include electrical conduit and pressure relief vents, not pieces of the door with low conductivity. (Bally, No. 40 at pp. 1–2) Bally also commented that it disagrees with DOE's discussion in the April 2022 NOPR that if the surface area of a door is measured without the frame, then it should be considered a panel. (*Id.*) Senneca stated that the outside dimensions of the frame should not be included in the surface area measurement because the frame mounts directly to the insulated panel and, therefore, the backside of the frame is not exposed directly to the cold-side temperature. (Senneca, No. 26 at p. 2) Additionally, Senneca described that a door with a longer track would require a longer frame and therefore would have a larger surface area; however, it stated that the larger frame would have no bearing on the energy consumption because, as mentioned, the backside of the frame is not exposed directly to the cold-side temperature. (*Id.*)

Senneca also stated that with the proposal for the door frame to be included in the surface area, it believes there is ambiguity in measuring sliding doors that have a track extending past the door frame. (*Id.*) DOE has considered Senneca's comment specific to sliding doors and acknowledges that the track of a horizontal sliding door may extend significantly beyond the width of the door leaf and door frame or casings and attach to the panels adjacent to the door, which would result in a significant increase in ''door surface area'' if the track width were to be included in the area measurement. Therefore, DOE has concluded that the portion of the track that extends beyond the external width (for a horizontal sliding door) or external height (for a vertical sliding door) of the door leaf or

[28] Solar irradiance is the power per unit area received from the sun in the form of electromagnetic radiation.

leaves and its frame or casings should be excluded from the surface area measurement used to determine compliance with the standards. DOE notes that given the equipment it is aware of on the market, this additional instruction will likely only impact the bounds of sliding non-display doors. DOE notes that sliding display doors typically have tracks that are integrated completely into the frame of the entire door system, thus the entire track is expected to be included in the determination of surface area.

DOE has considered stakeholder opposition to including the frame in the door surface area measurement but has determined that the definition of ''door'' includes the frame for consistent comparison across door products offered. DOE recognizes that non-display doors may have variations in the frames used, where some look similar to panels but tend to have electrical components wired through them, while others look more like casings used in replacement installations. DOE also recognizes that non-display doors may have variations in the installation of doors, where parts of the door frame may or may not be in direct contact with the cold side of the walk-in. However, DOE intends to consistently evaluate different products and sees a need to have consistent instructions on determining the bounds of surface area for all walk-in doors. DOE has determined that all parts of the door that impact the operation of the door shall be included in the determination of the surface area, with the exception of extended track area for sliding doors as discussed previously. Therefore, the bounds of the ''door surface area'' dimensions also include the frame.

As proposed in the April 2022 NOPR, in this final rule, DOE is defining ''door surface area'' as the product of the height and width of a walk-in door measured external to the walk-in. The height and width dimensions shall be perpendicular to each other and parallel to the wall or panel of the walk-in to which the door is affixed. The height and width measurements shall extend to the edge of the frame and frame flange (as applicable) to which the door is affixed. For sliding doors, the height and width measurements shall include the track; however, the width (for horizontal sliding doors) or the height (for vertical sliding doors) shall be truncated to the external width or height of the door leaf or leaves and its frame or casings. The surface area of a display door is represented as A_{dd}, and the surface area of a non-display door is represented as A_{nd}.

b. Surface Area for Determining U-Factor

As stated previously, appendix A currently references NFRC 100–2010, which in turn references NFRC 102 for the determination of U-factor through a physical test. When conducting physical testing, the U-factor (U_s) is calculated using projected surface area (A_s) and then converted to the final standardized U-factor (U_{ST}). *See* ASTM C1199, sections 8.1.3 and 9.2.7, as referenced through NFRC 102. Projected surface area (A_s) is defined as ''the projected area of test specimen (same as test specimen aperture in surround panel).'' *See* ASTM C1199, section 3.3, as referenced through NFRC 102.

Currently, equations 4–19 and 4–28 of appendix A specify that surface area of display doors (A_{dd}) and non-display doors (A_{nd}), respectively, are used to convert a door's U-factor into a conduction load. This conduction load represents the amount of heat that is transferred from the exterior to the interior of the walk-in.

As discussed in section III.C.2.a, DOE is amending the definitions of A_{nd} and A_{dd} to be specific to the exterior dimensions of the door, including the frame and frame flange as appropriate. Defining the bounds of the door through this definition is inconsistent with the defined area (A_s) used to calculate U-factor in NFRC 102–2020.

In the April 2022 NOPR, DOE proposed to specify that the projected area of the test specimen, A_s, as defined in ASTM C1199, or the area used to determine U-factor is the area used for converting the standardized tested U-factor, U_{ST}, into a conduction load in appendix A. 87 FR 23920, 23940. DOE recognizes that this may not change ratings for some doors, where A_s is equivalent to A_{nd} or A_{dd}, but it may result in slightly lower ratings of energy consumption for other doors, where A_s is less than A_{nd} or A_{dd}. DOE expects that since this proposed detail would either result in a reduced measured energy consumption or have no impact, there will likely be no need for manufacturers to retest or rerate. Additional details on how this detail impacts retesting and rerating are further discussed in section III.K.1 of this document.

Anthony commented that it agrees with the proposed revision to use the area of the test specimen, A_s, to calculate the conduction load. (Anthony, No. 31 at p. 6) Bally reiterated comments from AHRI, Hussmann, and Imperial Brown in response to the June 2021 RFI which suggested they did not see a distinction that warranted changing the definition. (Bally, No. 40 at p. 1) *See* summary of these comments at 87 FR 23920, 23939.

DOE reiterates that the door surface area defined in section III.C.2.a differs from the surface area used to calculate U-factor in NFRC 102–2020. Thus, despite stakeholder comments, DOE sees a need to resolve this discrepancy. Otherwise, the conduction load determined from the physical U-factor test may inflate the actual conduction load.

In the April 2022 NOPR, DOE also proposed to specify in appendix A that the physical U-factor test should include all components of the door that aid in the operation of the door, including the frame, rather than just the door leaf, to improve consistency in application of the test procedure across all walk-in doors. 87 FR 23920, 23940. Bally commented that it does not believe the frame of the door should be included in the U-factor test and suggested that including the frame in the U-factor test was minimal in comparison to the electrical components. (Bally, No. 40 at pp. 2–3) As stated in the April 2022 NOPR, DOE's testing of non-display doors has demonstrated that including the frame in the U-factor test has a measurable impact on the thermal performance of the door assembly relative to the increase in the total area, and so DOE is adopting the specification that the physical U-factor test should include the door frame.

3. Electrical Door Components

Sections 4.4.2 and 4.5.2 of appendix A currently include provisions for calculating the direct energy consumption of electrical components of display doors and non-display doors, respectively. Electrical components associated with doors could include, for example, heater wire (for anti-sweat or anti-freeze applications), lights (including display door lighting systems), control system units, or sensors. For each electricity consuming component, the calculation of energy consumption is based on the component's ''rated power'' rather than a measurement of its power draw. Section 3.5 of appendix A defines ''rated power'' as the electricity consuming device's power as specified (1) on the device's nameplate or (2) on the device's product data sheet if the device does not have a nameplate or such nameplate does not list the device's power.

As discussed in the April 2022 NOPR, DOE has observed issues that make calculating a door's total energy consumption a challenge. 87 FR 23920, 23940. These issues include using a

single nameplate for all door electrical components rather than individual nameplates for all electricity-consuming devices, specification of voltage and amperage rather than wattage on the nameplate, and no specification of whether the nameplate represents the maximum or steady-state operating conditions. DOE is aware that measuring direct power consumption of each electrical component could alleviate some of these issues. In response to the April 2022 NOPR, the Efficiency Advocates stated that they support an option for direct measurement of door component electrical power in the test procedure (Efficiency Advocates, No. 37 at p. 4). DOE acknowledges the comment but has concluded that additional investigation is needed to develop a test procedure for such measurements. Therefore, DOE is not adopting provisions requiring measurement of power consumption of each electrical door component in appendix A.

Furthermore, DOE has observed that some manufacturers may be certifying door motor power as the output power rating of the motor, rather than the input power of the motor. Thus, DOE proposed in the April 2022 NOPR to specify in appendix A that the rated power of each electrical component, $P_{rated,u,t}$, would be the rated input power of each component because the input power represents power consumption. The Efficiency Advocates also supported the clarification that the certified door motor power should be the input power. *Id.*

Additionally, DOE has observed through testing that the measured power of some walk-in door electrical components exceeds either the certified or nameplate power values of these electrical components. In the April 2022 NOPR, DOE proposed that for the purposes of enforcement testing, in 10 CFR 429.134(q), DOE may validate the certified or nameplate power values of an electrical component by measuring the power when the device is energized using a power supply that provides power within the allowable voltage range listed on the nameplate. If the measured input power is more than 10 percent higher than the power listed on the nameplate or the rated input power in a manufacturer's certification, then the measured input power would be used in the energy consumption calculation. For electrical components with controls, the maximum input wattage observed while energizing the device and activating the control would be considered the measured input power. Anthony agreed with the proposal to use nameplate values for determining energy consumption unless physical testing results in a power value that exceeds what is depicted on the nameplate. (Anthony, No. 31 at p. 6) Bally stated that adjusting nameplate values based on measurement results requires door manufacturers to be responsible for the quality assurance of their vendors. (Bally, No. 40 at p. 3) In response, DOE notes that the door manufacturer is ultimately responsible for certifying that the walk-in door, when outfitted with all necessary components, meets the applicable DOE energy conservation standards.

Given DOE's observations during testing, DOE sees a need to provide a way to calculate energy consumption using a measured value of electrical component power. DOE recognizes that there may be minor variations in measured power as compared to the rated power and has determined that a tolerance of 10 percent accounts for such variation. DOE is adopting this provision at 10 CFR 429.134(q)(4) only for the purposes of enforcement testing to aid the Department in determining non-compliance with energy conservation standards.

4. Percent Time Off Values

The current test procedure assigns percent time off (''PTO'') values to various walk-in door components to reflect the hours in a day that an electricity-consuming device operates at its full rated or certified power. PTO values are not incorporated in the rated or certified power of an electricity-consuming device. Table III.2 lists the PTO values in the current DOE test procedure for walk-in door components.

TABLE III.2—ASSIGNED PTO VALUES FOR WALK-IN DOOR COMPONENTS

Component type	Percent time Off (PTO) (%)
Lights without timers, control system, or other demand-based control	25
Lights with timers, control system, or other demand-based control	50
Anti-sweat heaters without timers, control system, or other demand-based control	0
Anti-sweat heaters on walk-in cooler doors with timers, control system, or other demand-based control	75
Anti-sweat heaters on walk-in freezer doors with timers, control system, or other demand-based control	50
All other electricity-consuming devices without timers, control system, or other auto-shut-off system	0
All other electricity-consuming devices for which it can be demonstrated that the device is controlled by a preinstalled timer, control system, or auto-shut-off system	25

As mentioned in the April 2022 NOPR, DOE has granted waivers to several door manufacturers with motorized door openers, allowing the use of a different PTO for motors.[29] 87 FR 23920, 23941. DOE proposed a single PTO for use with door motors to create consistency in the test procedure among doors with motors. 87 FR 23920, 23941–23942. DOE calculated an average PTO value based on the information in the waivers to determine a single representative PTO value. Considering the waivers and its calculations, DOE proposed to adopt a door motor PTO value of 97 percent for all walk-in doors with motors. *Id.* Senneca and the Efficiency Advocates agreed with the proposed PTO. (Senneca, No. 26 at p. 2; Efficiency Advocates, No. 37 at p. 2) Bally suggested that the power consumption of the motor be completely removed from the energy consumption calculation, but ultimately supported the proposed PTO value. (Bally, No. 40 at p. 3) DOE has determined that motor power consumption contributes to direct and total energy consumption of the door and aids in the operation of the door. Therefore, the motor power should be included in the determination of energy consumption. Additionally, pursuant to its waiver regulations, as soon as practicable after the granting of any waiver, DOE will publish in the **Federal Register** a notice of proposed rulemaking to amend its regulations to eliminate any need for the continuation of such waiver. 10 CFR 431.401(l). For the reasons stated above, DOE is adopting the PTO value of 97 percent

[29] *See* HH Technologies, 83 FR 53457; Jamison Door Company, 83 FR 53460; Senneca Holdings, 86 FR 75; Hercules, 86 FR 17801.

for door motors in appendix A. DOE notes that the adoption of this PTO value would not require retesting or recertification because calculated daily energy consumption will be equal to or lower than currently certified values. New testing would only be required if the manufacturer wishes to make claims using the new, more efficient rating.

5. Energy Efficiency Ratio Values

As discussed in the April 2022 NOPR, the energy efficiency ratio (''EER'') values used in appendix A differ from the EER values in appendix C. 87 FR 23920, 23942. The values in appendix A are used to calculate the daily energy consumption associated with heat loss through a walk-in door, and the values in appendix C correspond to adjusted dew point temperature when testing refrigeration systems of walk-in unit coolers alone. In the July 2021 RFI, DOE requested comment on the difference in EER values used in appendices A and C and based on stakeholder feedback, DOE concluded in the April 2022 NOPR that there is no advantage to harmonizing the two values. *Id.* As discussed in the April 2022 NOPR, an envelope component manufacturer cannot control what refrigeration equipment is installed and the EER values are intended to provide a nominal means of comparison rather than reflect an actual walk-in installation. Additionally, the difference between the EER values used in appendix A for doors and those used in appendix C for unit coolers is seven percent for coolers and five percent for freezers; however, changing the EER values would require manufacturers to retest and rerate energy consumption without necessarily providing a more representative test procedure. *Id.* Therefore, in the April 2022 NOPR, DOE did not propose to harmonize the EER values between appendices A and C.

In response to the April 2022 NOPR, Anthony suggested that DOE adopt the EER values specified in AHRI 1250 to align all components of a WICF and stated that the modification of EER values would not require additional testing, as these values are only used in the mathematical energy calculations. (Anthony, No. 31 at pp. 6–7) DOE notes that Anthony's suggested approach would require recalculation and recertification of every basic model and would do so without necessarily providing a more representative test procedure. As such, DOE has determined that changing the reference EER values in either appendix A or C would be unduly burdensome. Therefore, DOE is not harmonizing the EER values in appendices A and C.

6. Air Infiltration Reduction

As discussed in the April 2022 NOPR, EPCA includes prescriptive requirements for doors used in walk-in applications intended to reduce air infiltration. 87 FR 23902, 23943. Specifically, walk-ins must have (A) automatic door closers that firmly close all walk-in doors that have been closed to within 1 inch of full closure (excluding doors wider than 3 feet 9 inches or taller than 7 feet), and (B) strip doors, spring-hinged doors, or other method of minimizing infiltration when doors are open. (42 U.S.C. 6313(f)(1)(A)–(B)) DOE previously proposed methods for determining the thermal energy leakage due to steady-state infiltration through the seals of a closed door and door opening infiltration. 75 FR 186, 196–197; 75 FR 55068, 55084–55085. DOE did not ultimately adopt these methods as part of the final test procedure because DOE concluded that steady state infiltration was primarily influenced by on-site assembly practices rather than the performance of individual components. 76 FR 21580, 21594–21595 (April 15, 2011). Similarly, DOE stated that, based on its experience with the door manufacturing industry, door opening infiltration is primarily reduced by incorporating a separate infiltration reduction device at the assembly stage of the complete walk-in. *Id.*

In the April 2022 NOPR, DOE did not propose to include air infiltration in the test procedure. 87 FR 23920, 23943. However, the Efficiency Advocates encouraged DOE to incorporate a measurement of air infiltration for walk-in doors because it would improve the representativeness and encourage the development and deployment of technologies that can save energy. (Efficiency Advocates, No. 37 at p. 4) DOE did not receive any data or recommendations for how to incorporate the measurement of air infiltration for walk-in doors into the test procedure in response to either the June 2021 RFI or the April 2022 NOPR. DOE has concluded that additional investigation is needed to adopt a test procedure that considers air infiltration for walk-in doors and thus is not adopting provisions pertaining to air infiltration at this time. DOE intends to consider data on the magnitude of air infiltration for walk-ins as it becomes available for appropriate evaluation of the representativeness of including it in the test procedure for walk-in doors.

As previously mentioned, EPCA requires air infiltration limiting devices on all doors. (42 U.S.C. 6313(f)(1)(A)–(B)) Even though air infiltration is not currently evaluated as part of the current test procedure and thus not part of the performance standard, all walk-in doors are subject to the prescriptive requirements in the energy conservation standard pertaining to air infiltration limiting devices. (10 CFR 431.306(a)(1)–(2))

D. Amendments to Appendix A for Display Panels

Appendix A specifies the test procedure to determine energy consumption of walk-in display panels, which are not currently subject to any daily energy consumption performance standards but are subject to the prescriptive requirements at 10 CFR 431.306. The existing test procedure for walk-in display panels is very similar to that of walk-in doors in that it requires a U-factor test using NFRC 100–2010, which is used to determine the thermal conduction through the display panel and ultimately the total daily energy consumption. The existing display panel test procedure differs, however, from that of walk-in doors in that direct and indirect electrical energy consumption are not included in the test procedure.

In the April 2022 NOPR, DOE proposed to apply all the test requirements proposed for determining display door conduction load and energy consumption to determining display panel conduction load and energy consumption, except for the provisions applicable to electrical components and PTO values. 87 FR 23920, 23943.

Anthony agreed that the test procedure for display panels should be similar to the test procedure for display doors, but it disagreed with DOE's proposal that provisions applicable to electrical components and PTO values should be excluded from the test procedure for display panels. (Anthony, No. 31 at p. 7) Anthony stated that display panels can have heaters and lights. (*Id.*)

DOE acknowledges Anthony's feedback regarding display panels; however, DOE does not currently have sufficient information on display panel electrical components and PTO values to adopt provisions for electrical components for display panels. DOE may do so in a future rulemaking, however at this time, DOE is adopting the changes to section III.C of appendix A for determining display panel conduction load and energy consumption as proposed in the April 2022 NOPR.

E. Amendments to Appendix B for Panels and Non-Display Doors

The insulation R-value of walk-in non-display panels and non-display doors is determined using appendix B. In the April 2022 NOPR, DOE proposed to modify appendix B to improve test representativeness and repeatability. 87 FR 23920, 23943. Specifically, DOE proposed to make the following revisions to appendix B: (1) reference the updated industry standard ASTM C518–17; (2) include more detailed provisions on measuring insulation thickness and test sample thickness; (3) provide additional guidance on determining parallelism and flatness of test specimen; and (4) reorganize appendix B so it is easier for stakeholders to follow as a step-by-step test procedure. *Id.*

In response to the appendix B proposals, Bally commented that the proposed regulations will be burdensome for laboratories to conduct. (Bally, No. 40 at p. 4) DOE acknowledges Bally's comment; however, DOE has concluded that the proposed amendments would not be unduly burdensome and would improve test representativeness and repeatability as discussed in sections III.E.1 through III.E.5 of this document. Test procedure costs and impacts because of the adopted changes are further discussed in section III.K.2 of this document. DOE does not expect that the adopted changes to appendix B, discussed further, will alter measured R-values; therefore, no retesting or recertification is required.

Additionally, AHRI commented generally that they would like to understand if display doors, non-display doors, and panels use the same calculation. (AHRI, No. 30 at p. 4) DOE defines each of these components separately (*see* subpart R of 10 CFR 431.302) and their respective test procedures are described in appendix A, and appendix B. The procedure for determining energy consumption of display doors begins at section 4.4 of appendix A. The procedure for determining energy consumption of non-display doors begins at section 4.5 of appendix A. Sections 4.4 and 4.5 of appendix A follow the same methodology of accounting for thermal conduction through the door (represented in the form of additional refrigeration system energy), the direct electrical energy consumption of electricity-consuming devices sited on the door, and the indirect electrical energy consumption of electricity-consuming devices represented in the form of additional refrigeration system energy consumption. Panels not classified as display panels follow the test procedure in appendix B, which determines the R-value of insulation for only the foam of the panel.

Furthermore, DOE clarifies that in the following sections, the changes discussed are specifically in the context of walk-in panels; however, DOE notes that non-display doors are also subject to the prescriptive R-value requirement at 10 CFR 431.306(a)(3) and that the R-value for walk-in door insulation is determined using appendix B. The following sections describe the modifications that DOE is adopting in appendix B.

1. 24-Hour Testing Window

As mentioned in the April 2022 NOPR, DOE is aware that the test specimen and conditioning instruction and example given in section 7.3 of ASTM C518–04 and ASTM C518–17 conflict with the provision in section 4.5 of the DOE test procedure at appendix B. The DOE test procedure requires testing be completed within 24 hours of specimens being cut for the purpose of testing, while ASTM C518–04 and ASTM C518–17 require that specimens be conditioned prior to testing based on material specifications, which could be longer than 24 hours. 87 FR 23920, 23942.

Bally commented that a cut sample should not be exposed to air for longer than 8 hours because foam samples become irreversibly de-conditioned once removed from a panel. (Bally, No. 40 at pp. 3–4) Bally included a technical bulletin from 1984 that states that, in general, a 1-inch cut section of foam can increase in K-factor about 5 to 10 percent in a few days. (Bally, No. 40, Attachment 2) [30]

It is DOE's understanding that since the technical bulletin referenced by Bally was published, there have been changes to the blowing agents used in polyurethane foam, the most common foam insulation type used in walk-in panels. Additionally, no specific data on the change in K-factor beyond 8 hours was provided. Recent tests conducted by DOE demonstrate that there is no measurable difference in K-factor for specimens tested immediately after extraction from the complete panel as compared to specimens tested 24 hours after extraction from the complete panel. DOE has not evaluated changes to K-factor of a test specimen beyond 24 hours of extraction from the panel. Given the existing technology on the market today, DOE believes 24 hours is an appropriate limit that balances K-factor representativeness with test burden, and therefore DOE is maintaining the current requirement that testing be completed within 24 hours of cutting a test specimen from the envelope component. Correspondingly, DOE is not referencing Section 7.3 of ASTM C518–17 regarding specimen conditioning as part of its update to appendix B.

2. Total Insulation and Test Specimen Thickness

Section 4.5 of appendix B currently requires that K-factor of a 1 ± 0.1-inch sample of insulation be determined according to ASTM C518–04.

To make the test procedure in appendix B more repeatable, DOE proposed in the April 2022 NOPR to include instructions for determining both the total insulation thickness as well as the test specimen insulation thickness prior to conducting the test to determine K-factor using ASTM C518–17, which is substantively the same as determining the K-factor according to ASTM C518–04. 87 FR 23920, 23944. DOE also proposed step-by-step instructions for specimen preparation, including detailed instructions of the number and locations of thickness and area measurements and from where the test specimen should be removed from the overall envelope component. *Id.* DOE proposed to require the following for determining the total thickness of the foam, t_{foam}, from which the final R-value is calculated:

- The thickness around the perimeter of the envelope component is determined as the average of at least 8 measurements taken around the perimeter that avoid the edge region.[31]
- The area of the entire envelope component is calculated as the width by the height of the envelope component.
- A sample is cut from the center of the envelope component relative to the envelope component's width and height. The specimen to be tested using ASTM C518–17 will be cut from the center sample.
- The thickness of the sample cut and removed from the center of the envelope component is determined as the average of at least 8 measurements, with at least 2 measurements taken in each quadrant.

[30] The Bally comment included two supplemental attachments: Attachment 1, ''Solid and Opaque Eval,'' and Attachment 2, ''BTB—Aging of Foam.'' DOE will reference as ''Attachment 1'' and ''Attachment 2'' throughout this document. Both attachments are available on the docket.

[31] *Edge region* means a region of the panel that is wide enough to encompass any framing members. If the panel contains framing members (*e.g.,* a wood frame), then the width of the edge region must be as wide as any framing member plus an additional 2 in. ± 0.25 in. See section 3.1 of appendix B.

• The area of the sample cut and removed from the center of the envelope component is determined as the width by the height of the cut sample.

• Any facers on the sample cut from the envelope component shall be removed while minimally disturbing the foam, and the thickness of each facer shall be the average of at least 4 measurements.

• The average total thickness of the foam shall then be determined by calculating an area-weighted average thickness of the complete envelope component less the thickness of the facers.

Id.

For preparing and determining the thickness of the 1-inch test specimen, DOE proposed the following:

• A 1 ± 0.1-inch-thick specimen shall be cut from the center of the cut envelope sample removed from the center of the envelope component.

• Prior to testing, the average of at least 9 thickness measurements at evenly spaced intervals around the test specimen shall be the thickness of the test specimen, *L.*

Id.

In the April 2022 NOPR, DOE requested feedback on the proposed provisions relating to test specimen and total insulation thickness and test specimen preparation prior to conducting the ASTM C518–17 test. Anthony agreed with both of the proposals. (Anthony, No. 31 at p. 7) Bally referenced the EPCA calculation for R-value and recommended that R-value remain calculated with that formula. (Bally, No. 40 at p. 3) Bally commented that it believes the tolerance of 1 ± 0.1 inch is not necessary because the sample preparation process would need to be restarted, but a smaller sample could have been used to determine K-factor. (Bally, No. 40 at p. 4)

In response to Bally's comment, DOE is not adopting any changes to the R-value formula; rather, DOE is providing additional instruction so that the inputs to the R-value formula, namely the K-factor, are determined in a consistent and more repeatable manner. At this time, DOE has determined that the 1 ± 0.1 inch tolerance is still necessary to appropriately and consistently measure K-factor. Therefore, DOE is adopting the provisions outlined in the April 2022 NOPR for determining test specimen and total thickness of insulation in appendix B.

3. Parallelism and Flatness

The test procedure for determining R-value requires that the two surfaces of the tested sample that contact the hot plate assemblies (as defined in ASTM C518–04 and ASTM C518–17) maintain a flatness tolerance of ±0.03 inches and maintain parallelism of one another with a tolerance of ±0.03 inches.[32] *See* section 4.5 of appendix B. As discussed in the April 2022 NOPR, the current test procedure does not provide direction to measure or calculate flatness and parallelism. DOE believes, however, that accurate and repeatable determination of a specimen's R-value requires the specimen under test to be both flat and parallel. 87 FR 23920, 23944.

In the April 2022 NOPR, DOE proposed to include several steps for determining the parallelism and flatness of the test specimen in appendix B:

• Prior to determining the specimen thickness, the specimen would be placed on a flat surface and gravity used determine the specimen's position on the surface. As specified previously, a minimum of nine thickness measurements would be taken at equidistant positions on the specimen. These measurements would be associated with side 1 of the specimen.

• The least squares plane of side 1 is determined based on the height measurements taken. The theoretical height of the least squares plane is determined at each measurement location in the x and y (length and width) direction of the specimen.

• The difference at each measurement location between actual height measurement and theoretical height measurement based on the least squares plane is calculated. The maximum value minus the minimum value is the flatness associated with this side (side 1). For each side of the specimen to be considered flat, this value would need to be less than or equal to 0.03 inches.

• Flip the specimen so that side 1 is now on the flat surface and let gravity determine the specimen position on the surface. Repeat the steps above for side 2 of the specimen.

• To determine if each side of the specimen is parallel, the theoretical height at the four corners (*i.e.,* at points (0,0), (0,12), (12,0), and (12,12)) of the specimen must be calculated using the least squares plane. The difference in the maximum and minimum heights would represent the parallelism of one side and would need to be less than or equal to 0.03 inches for the specimen to be considered parallel.

87 FR 23920, 23945.

AHRI and Anthony agreed with the proposed provisions relating to determining parallelism and flatness of the test specimen. (AHRI, No. 30 at p. 4; Anthony, No. 31 at p. 8) Bally stated that commercial devices used to measure K-factor using ASTM C518 have an internal check on flatness and parallelism so a sample that is out of tolerance will be flagged. (Bally, No. 40 at pp. 4–5)

DOE acknowledges Bally's comment, however, it is DOE's understanding that not all manufacturers or laboratories use the same commercial device to measure K-factor. Regardless of the device used, a consistent procedure for determining parallelism and flatness is necessary. DOE is adopting the method for determining parallelism and flatness in appendix B as described in the April 2022 NOPR. 87 FR 23920, 23945.

4. Insulation Aging

The current test procedure for determining panel R-value does not account for insulation aging. ''Aging'' of foam insulation refers to how diffusion of blowing agents out of the foam and diffusion of air into the foam impacts thermal resistance of insulation materials. The gaseous blowing agents contained in the foam provide it with much of its insulating performance, represented by the R-value of the foam material. Because air has a lower insulating value than the blowing agents used in foam insulation, the increased ratio of air to blowing agent reduces the foam insulation performance, which reduces the R-value of the foam material over time. The building industry uses long-term thermal resistance (''LTTR'') to represent the R-value of foam material over its lifetime by describing the insulating performance changes due to diffusion over time. The presence of impermeable facers on a foam structure may delay the rate of aging or reduce the decrease in R-value when compared to a foam structure that is unfaced or has permeable facers. Blowing agents and temperature and humidity conditions may also affect the amount or rate of aging that occurs in a foam structure.

In the April 2022 NOPR, DOE discussed its previous adoption and subsequent removal of a test procedure that considered aging of foam insulation. 87 FR 23920, 23945–23946. DOE rescinded the method that evaluated aging because of stakeholder concerns regarding test burden and the availability of laboratories to conduct the adopted test procedure. 79 FR 23788, 27405–27406. As such, DOE did

[32] Maintaining a flatness tolerance means that no part of a given surface is more distant than the tolerance from the ''best-fit perfectly flat plane'' representing the surface. Maintaining parallelism tolerance means that the range of distances between the best-fit perfectly flat planes representing the two surfaces are no more than twice the tolerance (*e.g.,* for square surfaces, the distance between the most distant corners of the perfectly flat planes minus the distance between the closest corners is no more than twice the tolerance).

not propose to add test procedure provisions regarding aging in the April 2022 NOPR. 87 FR 23920, 23945–23946. DOE also did not propose to consider the effects of aging in assessment and enforcement testing because a recent study at Oak Ridge National Laboratory (''ORNL'') found the effects of foam insulation aging for panels sold with facers to be minimal when panel facers remain attached to the foam (*i.e.,* when the panel remains intact).[33] *Id.* In the April 2022 NOPR, DOE requested comment on other comparable data or studies of foam panel aging that are representative of the foam insulation, blowing agents, and panel construction currently used in the manufacture of walk-in panels. *Id.* DOE also requested comment on whether manufacturers have been certifying R-value at time of manufacture or after a period of aging. *Id.*

In response, AHRI suggested that any aging criteria should be based on the conditioning requirements in ASTM C518. (AHRI, No. 30 at p. 4) AHRI also stated that typical aging periods to ensure dimensional stability of finished foam has been reached vary between 14 and 28 days. *Id.* Bally stated that it tests its foam without aging. (Bally, No. 40 at p. 5) RSG commented that it would like to limit the time between manufacture and testing as much as possible. (RSG, No. 41 at pp. 1, 11) RSG stated that it has conducted its own test, where it calculated R-value every 2 weeks for 6 months after manufacture; it found that R-value drops sharply at the beginning, followed by a slower rate of decline. (*Id.*)

In response to AHRI's suggestion regarding aging criteria, DOE testing has shown that there is no measurable difference in K-factor for specimens tested immediately after extraction from the complete panel as compared to specimens tested 24 hours after extraction from the complete panel, even though it would be expected that aging of a thinner sample without facers would be more significant than a fully intact panel. Therefore, DOE expects the aging of an intact panel to be negligible after 24 hours.

Bally's and RSG's comments suggest that manufacturers are rating R-value without considering the effects of aging and would prefer to limit the amount of time between manufacture and test. As stated previously, DOE has found that there are minimal effects of foam insulation aging for panels sold with facers when panel facers remain attached to the foam. For assessment and enforcement testing conducted to support the enforcement of DOE's energy conservation standards, DOE is generally able to test samples within one to three months after receipt. The time lag from when the panel is manufactured and when testing is conducted at a laboratory is typically significantly shorter than that evaluated in the ORNL study. Therefore, DOE expects any reduction in R-value to be minimal from date of manufacture to assessment or enforcement test date. Additionally, walk-in panels received by DOE for assessment and enforcement testing are evaluated upon arrival to ensure that they are received intact (*i.e.,* with facers) and undamaged, and testing of the specimen is completed within 24 hours of sample removal from the panel, as specified in section 4.5 of the DOE test procedure in appendix B. DOE does not expect any reduction in R-value within 24 hours of the sample being cut from the panel. Therefore, at this time, DOE will not consider insulation aging in the test procedure nor in the Department's assessment and enforcement testing based on the available data. DOE may consider additional data on this issue as it becomes available.

5. Overall Thermal Transmittance of Non-Display Panels

The current test procedure for non-display panels does not measure the overall thermal transmittance of a walk-in panel. 87 FR 23920, 23946. DOE previously adopted a test method for measuring overall thermal transmittance of a walk-in panel, including the impacts of thermal bridges[34] and edge effects (*e.g.,* due to structural materials and fixtures used to mount cam locks). 76 FR 21580. However, after receiving comments concerning test and cost burden and the lack of availability of laboratories to conduct the test procedure, DOE rescinded this portion of the walk-in panel test procedure. 79 FR 27388, 27405–27406. Based on past concerns, DOE did not propose any provisions to evaluate overall thermal transmittance of non-display panels in the April 2022 NOPR. 87 FR 23920, 23946.

In response, the Efficiency Advocates encouraged DOE to investigate appropriate methods to capture the overall thermal transmittance of walk-in panels. (Efficiency Advocates, No. 37 at p. 4) DOE did not receive any other feedback on its proposal or specific suggestions on how to implement a procedure that would measure overall thermal transmittance while minimizing the test cost burdens previously identified.

DOE continues to have the same concerns regarding test burden and lack of availability of test facilities to conduct any potential overall thermal transmittance testing of walk-in panels. Therefore, DOE is not including a test procedure in appendix B for determining overall thermal transmittance of non-display panels at this time.

F. Amendments to Appendix C for Refrigeration Systems

Appendix C provides test procedures to determine the AWEF and net capacity of walk-in refrigeration systems. DOE does not expect that the adopted changes to appendix C will alter measured capacity values or AWEF. Therefore, DOE expects no retesting or recertification will be required. Rather, the revisions for appendix C address repeatability issues that DOE has observed through its testing of walk-in refrigeration systems.

The following sections describe the modifications that DOE is making to appendix C, in this final rule.

1. Refrigeration Test Room Conditioning

The DOE test procedure for walk-in refrigeration systems specifies temperature and/or humidity conditions for the test chambers. (*See, e.g.,* Tables 3 through 16 of AHRI 1250–2009, which is incorporated by reference in the DOE test procedure.) Section C6.2 of AHRI 1250–2009 requires that the environmental chambers ''be equipped with essential air handling units and controllers to process and maintain the enclosed air to any required test conditions.'' This requirement is also in section C5.2.2 of AHRI 1250–2020. However, DOE is aware that some test facilities may rely on the test unit to cool and dehumidify the test room. When the test unit is used to cool and dehumidify the test room, frost accumulation on the test unit's coils during pretest conditioning is possible and can affect the results of the capacity test. 87 FR 23920, 23947. Section C5.1 of AHRI 1250–2020 states that the unit cooler under test may be used to aid in

[33] A presentation on ORNL's study can be found online at *www.osti.gov/biblio/1844325-impact-thermal-bridging-imperfections-agingeffective-value-walk-cooler-freezer-panels.* DOE acknowledges that panels are shipped for assembly in walk-ins with the foam already in final chemical form between facers. Thus, the most applicable evaluation of change in insulation R-value over time is demonstrated by the red data points (labeled ''2'') for the foam that remained intact with the facers on slides 26 through 30 of ORNL's presentation.

[34] Thermal bridging occurs when a more conductive material allows an easy pathway for heat flow across a thermal barrier.

achieving the required test chamber ambient temperatures prior to beginning a steady-state test but requires the unit under test to be free from frost before initiating steady-state testing. In the April 2022 NOPR, DOE proposed to specify that for applicable system configurations (matched pairs, single-packaged systems, and unit coolers tested alone), the unit under test may be used to help achieve the required test chamber conditions prior to beginning any steady-state test. 87 FR 23920, 23947. Additionally, DOE proposed to require a visual inspection of the test unit coils for frost before the steady-state test begins. *Id.* 87 FR 23920, 23947. DOE requested comment on the proposed pretest coil inspection requirement and asked for feedback on current chamber conditioning practices within the industry. 87 FR 23920, 23947.

AHRI, HTPG, Hussmann, KeepRite, Lennox, and National Refrigeration disagreed with allowing the unit under test to condition the test room because it cannot sufficiently remove humidity from the room. (AHRI, No. 30 at p. 4; HTPG, No. 32 at p. 4; Hussmann, No. 38 at p. 3; KeepRite, No. 36 at p. 1; Lennox, No. 35 at pp. 2–3; National Refrigeration, No. 39 at p. 1) The same group of commenters also stated that the requirement for the unit to be ''free from frost'' is too subjective. (*Id.*) Hussmann mentioned that defrost could reduce the frost present, but that would result in a frosted-coil test instead of a dry-coil test. (Hussmann, No. 38 at p. 3) AHRI and Hussmann suggested that, if the unit under test is used to condition the test chamber, the unit's capacity be tested both before and after the test to ensure that the unit's capacity is not decreasing due to frost load. (AHRI, No. 30 at pp. 4–5; Hussmann, No. 38 at p. 3) Lennox recommended that environmental chambers be equipped with air handlers to maintain test conditions. (Lennox, No. 35 at pp. 2–3) RSG agreed with the DOE's proposed inspection requirement. (RSG, No. 41 at p. 1)

2. DOE notes that the proposed test procedure allows the unit under test to aid in achieving the required test chamber conditions This implies that other conditioning equipment may be necessary and that the unit under test should never be the sole conditioner. In addition, DOE notes that the amendments to test procedure are in alignment with section C5 of AHRI 1250–2020, the most current industry test procedure. DOE has determined that a visual inspection is the most practical way to confirm that coils are free from frost and that while such an inspection may include subjective judgement about the presence of frost, it is better than no inspection at all. DOE has therefore determined that a visual inspection of the coils is sufficient. DOE also notes that the operating tolerances discussed in section III.F.5 of this document, appendix C to subpart R of 10 CFR part 431, and AHRI 420–2007 ensure that any significant impact of frost collection during a test would invalidate the test unless the unit capacity remains steady throughout a test.[35] These requirements make the pre- and post-test measurement of capacity unnecessary. Therefore, DOE is adopting the test procedure as proposed in the April 2022 NOPR. DOE is adding the new requirement to appendix C, which also carries over to appendix C1.

Temperature Measurement Requirements

a. Suction Line Temperature Measurement

The current DOE test procedure requires measuring refrigerant temperature entering or leaving the unit cooler using either thermometer wells or immersed sensors to determine refrigerant enthalpy as part of the capacity measurement for matched pairs and unit coolers tested alone (*see* 10 CFR part 431, subpart R, appendix C, section 3.2.1). The capacity determination for dedicated condensing units tested alone is based on the refrigerant conditions leaving the condensing unit and standardized conditions leaving the unit cooler, as specified in section 3.4.2.1 of appendix C. In the April 2022 NOPR, DOE proposed to clarify that, when testing dedicated condensing units, thermometer wells or immersed sensors can be used only at the condensing unit liquid outlet and are not required to be used for the suction line. 87 FR 23920, 23947.

AHRI, KeepRite, Lennox, National Refrigeration, and HTPG all commented that they do not support the proposal to forgo temperature measuring requirements for the suction line when testing dedicated condensing units. (AHRI, No. 30 at p. 5; KeepRite, No. 36 at p. 1; Lennox, No. 35 at p. 3; National Refrigeration, No. 39 at p. 1; HTPG, No. 32 at p. 4) AHRI also stated that legacy calculation and simulation systems use existing temperature measurements of the suction discharge. (AHRI, No. 30 at p. 5)

DOE acknowledges that existing systems and calculations may depend on suction line temperature measurements. For this reason, DOE retracts its proposal from the April 2022 NOPR and in this final rule maintains the requirements for thermometer wells or immersed sensors for both the suction and liquid lines when testing dedicated condensing units alone.

AHRI-Wine also commented that wine cellar manufacturers are concerned that the wells are not large enough for temperature measurements. (AHRI-Wine, No. 30 at p. 2) DOE notes that thermometer wells are required in the current DOE test procedure for temperature measurement. DOE addresses these concerns in the remainder of this section.

b. Surface-Mount Temperature Measurement Allowances for Small Diameter Tubing

As mentioned in the April 2022 NOPR, DOE has found that implementing the current thermometer well requirement for refrigerant lines with an outer diameter of 1–2 inch or less can restrict the refrigerant flow and thus affect temperature measurements. To rectify this issue and to ensure that all walk-in refrigeration systems can be tested according to the DOE test procedure, DOE proposed allowing an alternative approach when the refrigerant line tubing diameter is 1–2 inch or less, in which the temperature measurement would be made using two surface-mounted measuring instruments with a minimum accuracy of ±0.5 °F, which would be averaged to obtain the reading. Additionally, DOE proposed that the two measuring instruments must be mounted on the pipe separated by 180 degrees around the refrigerant tube circumference. To ensure

[35] For dedicated condensing units and matched pairs, new mass flow operating tolerances are adopted as discussed in section III.F.5, and existing refrigerant temperature tolerances are specified in section 3.1.1 of appendix C to subpart R of 10 CFR part 431. These two measurements would drift out of tolerance during a test if frost conditions were significantly affecting capacity measurements for such systems. Similarly, table C3 of AHRI 420–2007 includes a refrigerant mass flow tolerance and table C4 of AHRI 420–2007 includes inlet and outlet saturation temperature operating tolerances. These measurements would drift out of tolerance during a test if frost conditions were significantly affecting capacity measurements of unit coolers tested alone.

measurements are not affected by changes in ambient temperature, DOE proposed requiring use of 1-inch-thick insulation around the measuring instruments that extends 6 inches up- and downstream of the measurement locations. Where this technique is used to measure temperature at the expansion valve inlet, DOE proposed to require that the measurement be within 6 inches of the device.

With respect to tube surface measurements, AHRI and KeepRite stated that the temperature measurements on the tube surface are not accurate enough, and that this measurement is too critical to allow this. (AHRI, No. 30 at p. 5; KeepRite, No. 36 at p. 1) AHRI and KeepRite also stated that a low-temperature reading resulting from surface-mounted temperature measurement devices could lead to bubbling upstream of the expansion valve, resulting in inflated AWEF values. (AHRI, No. 30 at p. 5; KeepRite, No. 36 at p. 2) Lennox supported DOE's proposal to allow surface-mounted temperature sensors but encouraged DOE to work with industry to ensure the full scope of applications can be covered with these requirements. (Lennox, No. 35 at p. 3) Additionally, AHRI and KeepRite suggested allowing transition to a pipe large enough for a thermometer well. *Id.* National Refrigeration also recommended maintaining the thermometer well requirement for small diameter tubing and allowing for larger diameter tubing to accommodate thermometer wells. (National Refrigeration, No. 39 at p. 1) Regarding location of the temperature measurement, AHRI and KeepRite agreed with the allowance to locate the temperature sensor within 6 inches; however, they suggested that the test procedure should further clarify if the measurement is from the body of the expansion valve or the joint with the liquid line. (AHRI, No. 30 at p. 5; KeepRite, No. 36 at p. 2) KeepRite further suggested allowing the dual liquid temperature measurements to be further upstream in a thermometer well with a secondary surface measurement 6 inches from the expansion valve and with sufficient insulation such that the surface temperature reading does not differ by more than 2 °F from the thermometer well measurements. (KeepRite, No. 36 at p. 2)

Specific to the liquid line temperature measurement location, DOE clarifies that the measurement is from the center of the body of the expansion valve.

AHRI-Wine and HTPG agreed with the proposal to allow two external temperature measurements for small diameter tubing. (AHRI-Wine, No. 30 at p. 2; HTPG, No. 32 at p. 4)

DOE acknowledges the concerns from stakeholders regarding the use of surface measurements and will consider data from industry on this issue in future rulemakings. DOE has conducted testing using the approach proposed in the April 2022 NOPR and has determined that the approach provides representative measurements and prevents bubbling. Therefore, DOE is adopting the surface mount temperature measurement test provisions as proposed in the April 2022 NOPR. These requirements will be added to appendix C, and will also carry over to appendix C1.

3. Hierarchy of Installation Instruction and Specified Refrigerant Conditions for Refrigerant Charging and Setting Refrigerant Conditions

As discussed in the April 2022 NOPR, DOE is aware that sometimes multiple installation instructions may be available for a unit, and different test results could be obtained based on which instructions are used. 87 FR 23920, 23948. DOE proposed a hierarchy for installation instructions and setup of refrigerant conditions to improve test repeatability by indicating which manufacturer-specified conditions would be prioritized during setup.

Setup conditions or instructions may be stamped on the unit nameplate or otherwise affixed to the unit, shipped with the unit, or available online. DOE has encountered walk-in refrigeration units for which these three sources of instruction provide different values or conflicting directions. To ensure consistent setup during testing, DOE proposed in the April 2022 NOPR that instructions or conditions stamped on or adhered to a test unit take precedence, followed by instructions shipped with the unit. *Id.* Because online instructions can be easily revised, DOE proposed that instructions or other setup information found online would not be used to set up the unit for testing.

Furthermore, setting of refrigerant charge level or refrigerant conditions is a key aspect of setup of refrigeration systems, whether for field use or testing. In the April 2022 NOPR, DOE proposed that units be charged and set up at operating conditions specified in the test procedure (for outdoor refrigeration systems, DOE proposed use of operating condition A) based on the installation instructions, using the proposed hierarchy (*i.e.,* prioritizing instructions stamped or adhered to unit over instructions included in a manual shipped with the unit). *Id.* In cases where instructions for refrigerant charging or refrigerant conditions are provided only online or not at all, DOE proposed that a generic charging approach be used instead. If the installation instructions specify operating conditions to set up the refrigerant charge or refrigerant conditions, those conditions would be used rather than the conditions specified in the test procedure. *Id.*

DOE determined that in some cases, a manufacturer specifies a range of conditions for superheat,[36] subcooling, and/or refrigerant pressure. In these instances, DOE proposed to treat the midpoint of that range as the target temperature/pressure, and a test condition tolerance would be applied to the parameter that is equal to half the range. For example, if a manufacturer specifies a target superheat of 5 to 10 °F, the target for test would be 7.5 °F and the average value during operation at the setup operating conditions would have to be 7.5 °F ± 2.5 °F. Alternatively, installation instructions may specify a refrigerant condition value without a range or without indicated tolerances. In such cases, DOE proposed that standardized tolerances be applied as indicated in Table III.3. These tolerances depend on the kind of refrigerant expansion device used.

[36] Superheat is the difference between vapor-phase refrigerant temperature and the dew point corresponding to the pressure level.

TABLE III.3—TEST CONDITION TOLERANCES AND HIERARCHY FOR REFRIGERANT CHARGING AND SETTING OF REFRIGERANT CONDITIONS

Fixed orifice or capillary tube			Expansion valve		
Priority	Method	Tolerance	Priority	Method	Tolerance
1	Superheat	±2.0 °F	1	Subcooling	10% of the target value; no less than ±0.5 °F, no more than ±2.0 °F.
2	High Side Pressure or Saturation Temperature.	±4.0 psi or ±1.0 °F	2	High Side Pressure or Saturation Temperature.	±4.0 psi or ±1.0 °F.
3	Low Side or Saturation Temperature.	±2.0 psi or ±0.8 °F	3	Superheat	±2.0 °F.
4	Low Side Temperature	±2.0 °F	4	Low Side Pressure or Saturation Temperature.	±2.0 psi or ±0.8 °F.
5	High Side Temperature	±2.0 °F	5	Approach Temperature	±1.0 °F.
6	Charge Weight	±2.0 oz.	6	Charge Weight	0.5% or 1.0 oz., whichever is greater.

DOE also notes that zeotropic [37] refrigerants have become more common. When charging with such refrigerants (*i.e.,* any 400 series refrigerant), DOE proposed that the refrigerant charged into the system must be in liquid form. 87 FR 23920, 23948. Charging a system in liquid form is standard practice for charging of such refrigerants because the concentrations of the components of the blend present in the vapor phase of the charging cylinder are often skewed from the intended concentrations of the refrigerant blend.

If the installation instructions on the label affixed to (or shipped with) the unit do not provide instructions for setting subcooling or otherwise how to charge with refrigerant for a condensing unit tested alone or as part of a matched pair, DOE proposed requiring testing the unit in a way that is consistent with the DOE test procedure and the installation instructions and that also does not cause the unit to stop operating during testing, *e.g.,* by shutoff by the high-pressure switch. DOE believes that such installation would be most representative of the way a technician would set up a system in the field if there were no refrigerant charge or subcooling instructions. 87 FR 23920, 23948.

AHRI and Lennox commented that they agree with the hierarchy of charging methods, however, they recommended that DOE allow use of online documentation. (AHRI, No. 30 at p. 6; Lennox, No. 35 at p. 3) HTPG also suggested that electronic instructions be allowed in addition to paper. (HTPG, No. 32 at p. 5)

As discussed previously, DOE proposed in the April 2022 NOPR not to permit online instruction manuals in part because they can be easily revised. In consideration of these stakeholder comments, DOE has determined to allow use of online instruction manuals, with certain restrictions. Firstly, online instructions can be used only if no instructions or conditions are stamped on or adhered to a test unit or shipped with the unit. Secondly, to prevent revision to online documentation once a unit has been shipped by the manufacturer, online instruction manuals must include a version number or version date on the unit label or in the documents that are packaged with the unit.

In this final rule, DOE is amending the test procedure such that setup instructions or conditions stamped on or adhered to a test unit take precedence, followed by instructions shipped with the unit, followed by online instructions if the version number or date of the online instruction manual is referenced on the unit label or is included in documents that are packaged with the unit.

AHRI and Lennox recommended that outdoor units should be charged for condition C, not condition A. (AHRI, No. 30 at p. 6; Lennox, No. 35 at p. 4) DOE has considered the commentors' recommendations and validated this charging procedure through testing. DOE is therefore amending the test procedure such that units be charged and set up at operating conditions specified in the test procedure (for outdoor refrigeration systems, operating condition C) based on the installation instructions, using the hierarchy summarized in Table III.3 of this document. DOE notes that many outdoor condensing units achieve head pressure control that uses valves to ''flood'' the condenser with liquid refrigerant to maintain sufficiently high condensing temperature when outdoor air is cold. If such a condensing unit has insufficient charge, it will be more obvious during operation in condition C (where head pressure control is generally active) since more charge would be in the condenser during such operation under head pressure control. Hence, DOE concludes that charging in the C condition rather than the A condition is appropriate for dedicated condensing systems (dedicated condensing units, matched systems, and single-packaged dedicated systems) that use a flooded condenser design. DOE has encountered units that, when charged at the C condition, will not operate at the A condition with the same charge weight due to high pressure cut out. This suggests the possibility that following the charging instructions may lead to two different charge weights depending on the condition used for charging. DOE maintains that it is not representative of field operation to use different refrigerant charge weights for the two test conditions, since it is not expected that refrigerant charge would be adjusted as ambient temperature rises and falls for a dedicated condensing system in the field. As such, DOE is adopting test provisions such that if a dedicated condensing system is charged at the C condition but does not operate at the A condition due to excess charge causing high pressure cut out, then refrigerant charge shall be adjusted to the highest charge that allows operation at the A condition. To limit the test burden of determining this highest charge, the determination shall be subject to a stepwise charge adjustment. Specifically, refrigerant would be removed in increments of 4 ounces or 5

[37] A zeotropic refrigerant is a blend of two or more refrigerants that have different boiling points. Each refrigerant will evaporate and condense at different temperatures.

percent of the system's receiver capacity, whichever is larger, until operation at the A condition is possible. All tests, including those at condition C, will then be performed with this refrigerant charge.

DOE notes that when conducting the C condition test for a dedicated condensing system for which this charge removal has occurred as described above, it is possible that the refrigerant leaving the system no longer has measurable subcooling. If the measured subcooling of the refrigerant leaving the condenser is less than 0 °F, its state cannot accurately be determined based on the measurement. The most direct way to determine the state of the refrigerant would be to provide additional cooling to the liquid line after it leaves the condensing unit using a flow of a fluid such as water such that the water mass flow and temperature rise would be measured and such that the refrigerant is subcooled downstream of this heat exchange. Such an approach would allow determination of the enthalpy at the condensing unit exit as the enthalpy of its subcooled downstream state plus the additional cooling provided divided by the mass flow. However, DOE has determined that such an approach would require a chilled water, a refrigerant water heat exchanger, a water flow meter, temperature sensors, and provisions for flow and temperature measurements to be captured by the data acquisition system. DOE has determined that this additional equipment and time required to set up the additional equipment represent an inappropriate increase in test burden. DOE has finalized the test procedure requiring that if the calculated subcooling at the condensing unit exit is less than 0 °F, the liquid at this location will be assumed to be at saturated liquid conditions. DOE has determined that the departure from saturated conditions is likely to be small. Additionally, this change in calculation method would only take place at one of the three test points. These two factors would lead to very little, or no, influence over the final measured AWEF. Further, this would only be necessary when testing units using refrigerant enthalpy-based test methods.

DOE notes that it is also possible for dedicated condensing systems to maintain condensing temperature for low ambient operating conditions using fan controls rather than condenser flooding. Units that use fan control to maintain condenser temperature would not require significantly more refrigerant charge when operating at the C condition compared to the A condition. However, the fan controls of these systems may cause instability in refrigerant conditions at the lower ambient temperatures at the C test condition. As such, DOE has determined that, for dedicated condensing systems that exclusively use fan controls to maintain condensing temperature at low ambient temperatures, charging at the A condition is more appropriate than charging such units at C condition. The refrigerant charging proposals in the April 2022 NOPR sought to minimize test burden while ensuring the repeatability and representativeness of walk-in refrigeration system testing. Stakeholders correctly pointed out that charging at the A test condition would not be representative for systems with flooded-condenser head pressure control. Thus, the change to charging at the C test condition was necessary. However, DOE has determined through testing that it is possible that when such a system is charged under test condition C, it could fail to operate due to high pressure cutout when operating under test condition A. Therefore, in order to ensure that a valid test can be conducted, DOE is adding the additional provisions. DOE believes these amendments are consistent with the intent of proposed changes in the April 2022 NOPR while being responsive to stakeholder feedback. Hence, DOE concludes that charging in the C condition rather than the A condition is appropriate.

HTPG stated that it agrees that the unit under test should be set up according to a hierarchy of conditions. HTPG further stated, however, that it was unclear on the rationale for the inclusion and priority of ''High Side Pressure or Saturation Temperature,'' ''Low Side Pressure or Saturation Temperature,'' ''Approach Temperature,'' and ''Charge Weight'' in Table III.3. (HTPG, No. 32 at p. 5) HTPG did not provide detail on why these parameters should not be included, or otherwise reprioritized, in the hierarchy. DOE has developed the hierarchy summarized in Table III.3 based on its own testing experience and has observed that these parameters are specified operating conditions for certain units. Through that testing DOE has determined that the priority and inclusion of the methods listed in Table III.3 are appropriate.

Lennox stated that hierarchies in tables 1 and 19 should specify dew vs. bubble point to remove confusion with high-glide refrigerants. (Lennox, No. 35 at p. 4) DOE interprets Lennox's comment to be in reference to Table III.3 in this document, which in the proposed regulatory text was table 1 of appendix C (*see* 87 FR 23290, 24000–24001) and table 19 of appendix C1, respectively (*see* 87 FR 23920, 24021). DOE acknowledges that the proposed test procedure hierarchy did not clarify whether the dew or the bubble point should be used when the saturation point is specified. However, this should be addressed in the manufacturer's installation instructions, not specified by the test procedure. To clarify the intent in the hierarchy, DOE is adding a note in table 1 of appendix C and table 19 of appendix C1 to indicate that saturation temperature can refer to either bubble or dew point calculated based on a measured pressure, or a coil measurement, as specified by the installation instructions. DOE is adopting this clarification in this final rule.

AHRI, on behalf of wine cellar manufacturers, KeepRite, and National Refrigeration agreed with the charging hierarchy. (AHRI-Wine, No. 30 at p. 2; KeepRite, No. 36 at p. 2; National Refrigeration, No. 39 at p. 1)

DOE received no comment on the remaining proposals discussed in this section. In this final rule, DOE is adopting the testing hierarchy instructions proposed in the April 2022 NOPR into appendix C, and will also carry these provisions over to appendix C1.

a. Dedicated Condensing Unit Charging Instructions

For dedicated condensing units tested alone, subcooling is the primary setup condition. In the April 2022 NOPR, DOE proposed that if the dedicated condensing unit includes a receiver and the subcooling target leaving the condensing unit provided in the installation instructions cannot be met without fully filling the receiver, the subcooling target would be ignored. 87 FR 23920, 23948. Likewise, if the dedicated condensing unit does not include a receiver and the subcooling target leaving the condensing unit cannot be met without the unit cycling off on high pressure, the subcooling target would be ignored. Also, if no instructions for charging or for setting subcooling leaving the condensing unit are provided in the installation instructions, DOE proposed that the refrigeration system would be set up with a charge quantity and/or exit subcooling such that the unit operates during testing without shutdown (*e.g.,* on a high-pressure switch) and operation of the unit is otherwise consistent with the requirements of the test procedure and the installation instructions.

DOE received no comments in response to the proposals discussed in this section. In this final rule, DOE is adopting the dedicated condensing unit charging instructions proposed in the April 2022 NOPR into appendix C, and will also carry these provisions over to appendix C1.

b. Unit Cooler Setup Instructions

For unit coolers tested alone, superheat is the primary setup condition. Most WICF refrigeration systems use either thermostatic or electronic expansion valves (''EEVs'') that respond either mechanically or through a controller to adjust valve position to control for superheat leaving the unit cooler. If the unit under test is shipped with an adjustable expansion device, DOE proposed in the April 2022 NOPR that this would be the primary method to adjust superheat. 87 FR 23920, 23948. However, DOE has encountered units with expansion devices that are not adjustable or where the expansion device does not provide a sufficient adjustment range to achieve the superheat target. If the expansion valve associated with the unit under test reaches its limit before the superheat target is met, the specified superheat may not be met within the specified tolerance. In this case, DOE proposed in the April 2022 NOPR that the expansion valve should be adjusted to obtain the closest match to the superheat target. *Id.* DOE has also encountered unit coolers with inappropriate expansion devices. When this occurs, DOE proposed in the April 2022 NOPR that any expansion device specified for use with the unit cooler in manufacturer literature may be used for the purposes of DOE testing. *Id.*

In the April 2022 NOPR, DOE also proposed that an operating tolerance would not apply to superheat. Hence, if the system expansion valve control fluctuates (*i.e.,* if so-called ''hunting'' occurs, in which the valve position, temperatures, and/or pressures are unsteady), it would not invalidate a test. 87 FR 23920, 23948–23949. However, if the fluctuation is so great that a valid test cannot be performed (*i.e.,* any individual measurement of superheat during the test is zero or less), or if the operating tolerances for measurements that would be affected by expansion device hunting are exceeded (mass flow, pressure at the unit cooler exit, evaporator temperature difference),[38] the test procedure would allow for deviation from the installation instructions. DOE proposed in the April 2022 NOPR that deviation from the installation instructions would be at the discretion of the test laboratory and could include replacing the expansion device with a different expansion device that does not need to be listed in installation instructions, adjusting the expansion device to provide an average superheat that is greater than the target superheat, or both. 87 FR 23920, 23949.

If the unit's installation instructions do not include setting superheat for a unit cooler tested alone or as part of a matched pair, DOE proposed in the April 2022 NOPR that the target superheat would be 6.5 °F, the same value required in such circumstances in AHRI 1250–2020 (see Tables 16 and 17 of AHRI 1250–2020). *Id.*

AHRI commented that unit cooler charging should be done based on the expansion valve controlled by the room, not the supplied expansion valve. (AHRI, No. 30 at p. 6) Lennox stated that it is industry practice to test unit coolers with EEVs, because use of these valves eliminates ''hunting'' and is more reliable. (Lennox, No. 35 at p. 4) HTPG stated that it disagrees with the proposal in the April 2022 NOPR that operating tolerance would not apply to superheat and believes it conflicts with AHRI 1250–2020, as well as Table III.3. (HTPG, No. 32 at p. 5)[39]

After consideration, DOE has determined that using the expansion valve supplied with the unit cooler is most appropriate for testing because it most closely represents field performance. DOE notes that the expansion device provided with the unit cooler or specified in the unit cooler installation instructions may result in hunting behavior and may fluctuate outside the specified tolerances for superheat. Nevertheless, these results are expected to be more representative of field performance than using a laboratory controlled EEV that provides steady operation. As discussed in the preceding paragraphs, the amended test procedure provides test laboratories with alternatives if the expansion devices shipped with the unit, or specified in the installation instructions, result in hunting that interferes with test measurement tolerances.

DOE is aware that industry test practices are not currently consistent with this approach. As such, DOE recognizes that testing unit coolers with the expansion device shipped with the unit may require manufacturers to retest and recertify their unit cooler basic models. DOE is therefore not adopting the unit cooler expansion device requirements proposed in the April 2022 NOPR in appendix C. DOE is instead adopting those provisions only in appendix C1, which would be required for demonstrating compliance with any future amended WICF energy conservation standards. Manufacturers would therefore have additional time to retest and recertify unit cooler basic models impacted by these requirements.

c. Single-Packaged Dedicated System Setup and Charging Instructions

DOE has identified multiple setup issues while testing single-packaged dedicated systems. Compared to split refrigeration systems,[40] single-packaged dedicated systems have less adjustment flexibility due to lack of controls. Additionally, while many single-packaged dedicated systems are marketed as ''fully charged,'' DOE has found that many of its test units were undercharged.

In the April 2022 NOPR, DOE proposed that one or more pressure gauges (depending on the number of conditions that require a pressure measurement for validation) should be installed during setup according to the manufacturer's installation instructions to evaluate the charge of the unit under test and to accurately measure setup conditions. 87 FR 23920, 23949. The location of the pressure gauge(s) would depend on the test setup conditions given in the installation instructions. If charging is based on subcooling or liquid pressure, DOE proposed that the pressure gauge(s) would be installed at the service valve of the liquid line. If charging is based on superheat, low side pressure, or a corresponding saturation temperature or dew point temperature, DOE proposed that the pressure gauge(s) would be placed in the suction line. 87 FR 23920, 23949.

DOE is aware that installation instructions for some single-packaged dedicated systems recommend against installing charging ports; however, DOE has observed through testing that some such units that recommend against installing charging ports do not operate once installed due to high- or low-pressure compressor cut off, which is often a symptom of under- or over-charging or refrigerant loss. These units are representative of what a contractor

[38] Evaporator temperature difference (TD) is the difference in temperature between the entering air and the refrigerant dew point of the exiting refrigerant.

[39] DOE held an *ex parte* meeting with Lennox and HTPG to clarify these comments. *See* Docket No. EERE–2017–BT–TP–0010–0043.

[40] ''Split refrigeration systems'' refer to systems made up of a condensing unit and a unit cooler that are connected by refrigerant lines and are not contained in a single housing. Split refrigeration systems could be field-matched condensing units and unit coolers or condensing units and unit coolers sold as matched pairs.

would encounter when installing a walk-in single-packaged dedicated system in the field. Therefore, in cases where a unit under test is not operating due to high- or low-pressure compressor cut off, DOE proposed in the April 2022 NOPR that a charging port should be installed, the unit should be evacuated, and the nameplate charge should be added. 87 FR 23920, 23949. This approach would eliminate under- or over-charging of the unit which would address compressor cut off.

DOE received no comments in response to the proposals in this section. In this final rule, DOE is adopting the single-packaged dedicated system setup instructions proposed in the April 2022 NOPR into appendix C, and will also carry these provisions over to appendix C1.

d. Hierarchy of Setup Conditions if Manufacturer-Specified Setup Conditions Cannot Be Met

In DOE's experience, even when all the previously discussed measures are implemented during test setup, some manufacturer-specified setup conditions may not be met. In this case, DOE proposed in the April 2022 NOPR that the unit under test be set up according to a hierarchy of conditions like those used for central air-conditioning systems and heat pumps. 87 FR 23920, 23949. First, the installation instruction hierarchy previously discussed in section III.F.3 would be applied. Specifically, if a refrigerant-related setup instruction in the installation instructions affixed to the unit and a different instruction in the installation instructions shipped with the unit cannot both be achieved within tolerance, the instruction on the label takes precedence. Further, if multiple instructions within the relevant installation instructions cannot be met, the proposed hierarchy outlined in Table III.3 would be applied. The highest priority condition that can be satisfied, based on Table III.3, would need to be met, depending on what kind of expansion device the system uses. This approach would ensure that units are set up consistently across testing facilities, ensuring more consistent results.

DOE received no comments in response to this proposal. In this final rule, DOE is adopting the hierarchy of setup conditions proposed in the April 2022 NOPR into appendix C, and will also carry these provisions over to appendix C1.

4. Subcooling Requirement for Mass Flow Meters

Section C3.4.5 of AHRI 1250–2009 requires that refrigerant be subcooled to at least 3 °F and that bubbles should not be visible in a sight glass immediately downstream of the mass flow meter. Section 3.2.3 of appendix C allows use of the sight glass and a temperature sensor located on the tube surface under the insulation to verify sufficient subcooling. DOE testing has shown that even when the subcooling requirement is met downstream of the mass flow meter, the liquid temperature can be warmer upstream. This difference results in less subcooling, and mass flow measurements may not provide capacity within the required tolerances (*i.e.,* within 5 percent of each other [41] as required by section C8.5.3 of AHRI 1250–2009). 87 FR 23920, 23950. In the April 2022 NOPR, DOE proposed to include additional instruction to section 3.2.3 of appendix C, to ensure fully liquid flow at the mass flow meter. *Id.*

First, DOE proposed that the 3 °F subcooling requirement be applied at a location dependent on the location of the liquid-line mass flow meters. *Id.* Specifically, the proposed requirement applies downstream of any mass flow meter located in the chamber that contains the condensing unit under test, consistent with AHRI 1250–2009. However, for mass flow meters located in the chamber that contains the unit cooler under test, subcooling would need to be verified upstream. In the April 2022 NOPR, DOE requested comments on its proposal to clarify the location where the 3 °F subcooling requirement would apply. *Id.*

AHRI stated that the proposal to clarify the location where the 3 °F subcooling applies may be sufficient in most, but not all, cases. (AHRI, No. 30 at p. 6) AHRI, KeepRite, and National Refrigeration recommended measuring temperature before and after the mass flow meter and calculating subcooling using the higher of the two temperatures with the pressure downstream of the meter to guarantee fully liquid flow. (AHRI, No. 30 at p. 6; KeepRite, No. 36 at p. 2; National Refrigeration, No. 39 at p. 2)

HTPG recommended insulating the flow meter and line set to guarantee fully liquid flow. (HTPG, No. 32 at p. 5) HTPG also recommended that for dedicated condensing unit testing, the temperature measurement should be made before the flow meter inlet and for unit cooler testing, temperature measurement should be taken after the flow meter outlet. *Id.*

Lennox and RSG agreed with DOE's proposal to clarify the subcooling condition measurement location. (Lennox, No. 35 at p. 4; RSG, No. 41 at p. 2)

DOE notes that, assuming the mass flow meters are in the same room as the dedicated condensing unit, insulating the flow meter and line set may or may not help ensure fully liquid flow, depending on whether the temperature surrounding the line set and flow meter are higher or lower than the liquid temperature. DOE agrees that HTPG's recommendation for measuring the subcooling before and after the mass flow meters may provide a more rigorous approach for ensuring adequate subcooling throughout the flow meter than the procedure proposed by DOE in the April 2022 NOPR. However, during testing, DOE has found that the subcooling measurement locations proposed in the April 2022 NOPR ensure adequate subcooling through the mass flow meters with reduced test burden. Therefore, DOE is adopting the subcooling measurement locations as proposed in the April 2022 NOPR. DOE is adding the new requirements to appendix C, and will also carry these provisions over to appendix C1.

Second, DOE proposed that active cooling of the liquid line may be used to achieve the required subcooling, because the subcooling at the mass flow meter outlet may not meet the 3 °F requirement when the subcooling at the condensing unit exit is within tolerance of its target. However, DOE also proposed requiring that if active cooling is done when testing a matched pair (not including single-packaged dedicated systems), the temperature also must be measured upstream of the location where cooling is provided, and the temperature used to calculate the enthalpy of the refrigerant entering the unit cooler be increased by the difference between the upstream and downstream measurements. DOE proposed this adjustment so that active cooling of the liquid to obtain a mass flow measurement does not provide a non-representative boost in calculated cooling capacity.

In the April 2022 NOPR, DOE sought comment on its active subcooling and capacity calculation adjustment proposals. 87 FR 23920, 23950. In response, AHRI and KeepRite recommended adjusting test results for

[41] Section C8.5.3 of AHRI 1250–2009 requires that the two refrigerant-side gross capacities calculated based on the two sets of independent temperature, pressure, and mass flow measurements are within 5 percent of each other to ensure adequate subcooling. In the absence of adequate subcooling, the two refrigerant-side gross capacities may not be within 5 percent of each other due to disagreement in the mass flow readings.

active cooling based on suction pressure when testing matched pairs. (AHRI, No. 30 at p. 6; KeepRite, No. 36 at p. 2) KeepRite additionally stated that active subcooling should be constrained to prevent excessive subcooling and to obtain consistent results. (KeepRite, No. 36 at p. 2) KeepRite also recommended additional testing to determine best practices for an active subcooling system and presented some possible best practices. (KeepRite, No. 36 at p. 3) RSG agreed with DOE's proposal to require adjustment of the measured unit cooler for active cooling. (RSG, No. 41 at p. 2)

DOE acknowledges these comments and is making the following adjustments to the final test procedure to address stakeholder concerns. Instead of requiring an enthalpy adjustment if active subcooling is used, DOE is requiring that, if active subcooling is used, the line must be reheated such that the refrigerant is at the same temperature as it was upstream of the active subcooling device. This approach allows recording of an accurate mass flow measurement with no impact on the measured capacity of the unit under test. DOE is adopting the rest of the test procedures allowing active subcooling as proposed in the April 2022 NOPR. DOE is adding the new requirements to appendix C, and will also carry these provisions over to appendix C1.

5. Instrument Accuracy and Test Tolerances

The current DOE test procedure references AHRI 1250–2009 for instrument accuracy and test tolerances with some modifications (*see* 10 CFR part 431, subpart R, appendix C, section 3.1). As discussed in the April 2022 NOPR, some tolerances and instrumentation accuracy requirements in AHRI 1250–2020 are not consistent with the current DOE test procedure. 87 FR 23920, 23950. Specifically, DOE proposed to adopt the following changes from AHRI 1250–2020 into appendix C:

- Change the measurement accuracy for the temperature of air entering or leaving either the evaporator or condenser from ± 0.25 °F.
- Replacing the ASHRAE 23.1 refrigerant mass flow operating tolerance of ± 1 percent of the quantity measured with an operating tolerance of 3 pounds per hour (''lb/h'') or 2 percent of the reading (whichever is greater).

DOE did not receive comment on these proposals in the April 2022 NOPR. In this final rule, DOE is adopting the proposed changes from AHRI 1250–2020 into appendix C. These changes are not expected to impact measured values. DOE is adding the new requirements to appendix C, and will also carry these provisions over to appendix C1.

6. CO_2 Unit Coolers

As discussed in the April 2022 NOPR, CO_2 behaves differently than other refrigerants, as it has a critical temperature of 87.8 °F.[42] Ambient temperatures greater than 87.8 °F are common, and the performance of many refrigeration and air-conditioning systems are tested using a 95 °F ambient temperature, as indicated by the A test condition in Section 5 of AHRI 1250–2009 (and AHRI 1250–2020). At temperatures greater than the critical temperature, the CO_2 refrigerant is in a supercritical state. Since useful cooling is provided below the critical temperature, CO_2 cycles are said to be transcritical.

DOE has granted test procedure waivers to the manufacturers listed in Table III.1 of this document for certain basic models of walk-in refrigeration systems that use CO_2 as a refrigerant. Manufacturers requesting a waiver from the DOE test procedure for CO_2 unit coolers stated that the test conditions described in Tables 15 and 16 of AHRI 1250–2009, as incorporated by appendix C, with modification, cannot be achieved by, and are not consistent with the operation of, CO_2 direct expansion unit coolers. The alternate test procedure provided in these waivers modifies the test condition values to reflect typical operating conditions for a transcritical[43] CO_2 booster system. Specifically, the waiver test procedures require that CO_2 unit cooler testing is conducted at a liquid inlet saturation temperature of 38 °F and a liquid inlet subcooling temperature of 5 °F.

In the April 2022 NOPR, DOE proposed to adopt in appendix C (and also in appendix C1), the alternate test conditions specified in the waivers that DOE granted for CO_2 transcritical unit coolers for all CO_2 unit coolers. Also, consistent with the waiver alternate test procedure, DOE proposed that the EER values in Table 17 of AHRI 1250–2009 (or Table 18 of AHRI 1250–2020 for appendix C1) be used to determine the AWEF of all CO_2 unit coolers. 87 FR 23920, 23952. DOE requested comment on the appropriateness of traditional refrigerant compressor EER values for use in CO_2 unit cooler AWEF calculations. *Id.*

AHRI, HTPG, Hussmann, Lennox, and National Refrigeration all agreed with the proposal. (AHRI, No. 30 at p. 7; HTPG, No. 32 at p. 5; Hussmann, No. 38 at p. 6; Lennox, No. 35 at p. 4; National Refrigeration, No. 39 at p. 2) DOE is adopting the test procedure as proposed in the April 2022 NOPR for CO_2 unit coolers and adding the new requirements to appendix C, and will also carry these provisions over to appendix C1.

7. High-Temperature Unit Coolers

As discussed in the April 2022 NOPR, DOE is aware of wine cellar (high-temperature) refrigeration systems that fall within the definition of ''walk-in'' but are unable to be tested under the current version of the walk-in test procedure due to their operation at a temperature range of 45 °F to 65 °F. 87 FR 23920, 23952. Most of the high-temperature refrigeration systems that DOE is aware of are either single-packaged dedicated systems or matched pairs. However, DOE has granted an interim waiver for high-temperature unit coolers that are distributed into commerce without a paired condensing system.[44]

Under the current test procedure, these unit cooler-only models would be tested according to the provisions in the test procedure for unit coolers tested alone, for which the AWEF calculation requires an appropriate EER. DOE has determined that the EER values for medium- and low-temperature unit coolers tested alone are not appropriate for high-temperature applications because this equipment operates with a different suction dew point temperature, and the dedicated condensing units typically paired with medium- and low-temperature units likely use different compressor designs, which would have different efficiencies.

As discussed in the April 2022 NOPR, DOE calculated representative compressor EER levels for wine cellar walk-in unit coolers based on compressor performance data collected by DOE. 87 FR 23920, 23953. DOE used

[42] All refrigerants have a ''critical pressure'' and an associated ''critical temperature'' above which liquid and vapor phases cannot coexist. Above this critical point, the refrigerant will be a gas and its temperature will increase or decrease as heat is added or removed.

[43] CO_2 refrigeration systems are transcritical because the high-temperature refrigerant that is cooled by ambient air is in a supercritical state, above the 87.8 °F critical point temperature, above which the refrigerant cannot exist as separate vapor and liquid phases.

[44] DOE granted an interim waiver to LRC Coil Company for specific basic models of unit cooler-only walk-in wine cellar refrigeration systems on August 26, 2021. 86 FR 47631. (*See also* EERE–2020–BT–WAV–0040, No. 1.) In reviewing another petition for waiver and interim waiver from Vinotheque for single-packaged system and matched pair system basic models (Vinotheque, EERE–2019–BT–WAV–0038, No. 6), DOE noted that the manufacturer also offered unit cooler-only systems distributed without a paired condensing system.

the calculated compressor EER levels to develop different functions of EER for three distinct capacities, as summarized in Table III.4.

TABLE III.4—EER VALUES FOR HIGH-TEMPERATURE COMPRESSORS AS A FUNCTION OF CAPACITY FOR HIGH-TEMPERATURE REFRIGERATION SYSTEMS

Capacity (Btu/hr)	EER (Btu/(W-h))
<10,000	11.
10,000–19,999	(0.0007 × Capacity) + 4.
20,000–36,000	18.

The LRC Coil interim waiver includes additional test procedure provisions to obtain representations that are representative for high-temperature unit coolers, including both testing requirements and AWEF calculation requirements. 86 FR 47631. These include provisions for testing ducted fan coil unit evaporator systems. 86 FR 47631, 47635.

In the April 2022 NOPR, DOE proposed to include provisions for testing high-temperature unit coolers in appendix C. 87 FR 23920, 23953. These provisions, consistent with the LRC Coil interim waiver, would include conditions for testing these unit coolers at high-temperature refrigeration conditions, as well as the EER values in Table III.4 for calculation of AWEF. DOE also proposed to include these provisions in appendix C1 in the April 2022 NOPR. *Id.* AHRI-Wine agreed with DOE's inclusion of high-temperature unit cooler; however, they are concerned with the suitability of the test provisions and AWEF criteria. (AHRI-Wine, No. 30 at p. 2)

DOE notes that high-temperature unit coolers have the same function as medium- and low-temperature unit coolers, however, their suction dew point temperature differs, and counterpart-dedicated condensing units may use high-temperature compressors designed for higher temperatures. Therefore, DOE has concluded that the same test procedure can be used for low-, medium- and high- temperature unit coolers, as long as the EER values presented in Table III.4 are used for high-temperature operation. After consideration of stakeholder comments, DOE is adopting the test procedure provisions for high-temperature unit coolers as proposed in the April 2022 NOPR. DOE is adding the new requirements to appendix C, and will also carry these provisions over to appendix C1.

AHRI also stated that rating high-temperature unit coolers alone without a method to rate high-temperature dedicated condensing units disadvantages matched pairs and single-packaged dedicated systems. (AHRI, No. 30 at p. 2) DOE will evaluate standards for high-temperature equipment, including any appropriate equipment classes, in the ongoing walk-in energy conservation standards rule making. DOE's evaluation of the wine cellar market indicates that specific high-temperature dedicated condensing units are rarely, if ever, sold outside of matched-pair configurations. The dedicated condensing units DOE has encountered that are sold outside of a matched-pair configuration and that may be used in high-temperature applications are general-purpose condensing units often marketed for medium- and high-temperature, or only medium-temperature applications. Based on the definition of walk-in coolers (*i.e.,* medium-temperature refrigeration systems; *see* 10 CFR 431.302), DOE has determined that the dedicated condensing units used for high-temperature applications are medium-temperature dedicated condensing units. As such, these units do not need to be certified for high-temperature applications but do need to be certified for medium-temperature applications.

G. Establishing Appendix C1 for Refrigeration Systems

In the April 2022 NOPR, DOE proposed to establish a new appendix C1 to subpart R of part 431, which would be required to demonstrate compliance coincident with the compliance date of any amended energy conservation standards that DOE may promulgate as part of a separate standards rulemaking. 87 FR 23920, 23953.

As the changes included in appendix C1 are expected to change measured values for walk-ins, DOE is establishing a new annual walk-in efficiency factor metric, AWEF2, that will replace the current metric, AWEF, once appendix C1 is required for use. In many cases, AWEF2 of a given refrigeration system will not be the same as AWEF. For any amended energy conservation standards that DOE may promulgate as part of a separate standards rulemaking, the standards will be set based on AWEF2.

While AHRI 1250–2009 provides a method for determining off-cycle fan power, AHRI 1250–2020 includes off-cycle power measurement for additional auxiliary components (*e.g.,* crankcase heaters, pan heaters, and controls). AHRI 1250–2020 also adds test procedures that allow for the testing of single-packaged dedicated systems and account for the thermal loss of these systems. Taking into consideration the additions just described, DOE has determined that AHRI 1250–2020 improves representativeness and expands the applicability of the walk-in refrigeration system test procedure. Additionally, DOE test procedures strive to be consistent with industry test methods. As AHRI 1250–2020 is the most recent revision to the industry test procedure for walk-in refrigeration systems, it is the best representation of current industry testing practices. Therefore, DOE is incorporating AHRI 1250–2020 by reference into its test procedure at appendix C1 for walk-in refrigeration systems.

The test procedure changes that DOE is adopting as a part of appendix C1 are discussed in the following sections.

1. Off-Cycle Power Consumption

For walk-in refrigeration systems, the term ''off-cycle'' refers to the period when the compressor is not running and defrost (if applicable) is not active. During off-cycle, unit cooler fans and other auxiliary equipment (crankcase heater, receiver heater, etc.) [45] may typically run or cycle on and off, consuming energy. The DOE test procedure currently accounts for only unit cooler fan energy use during the off-cycle period. 10 CFR part 431, subpart R, appendix C, section 3.3.3. Specifically, the current test procedure requires manufacturers to measure the integrated average off-cycle fan wattage [46] for matched pairs and unit coolers tested alone. Dedicated condensing units tested alone use default fan energy values rather than tested values. 10 CFR part 431, subpart R, appendix C, section 3.4.2.2. When calculating AWEF, the unit cooler fans are assumed to run at this average integrated wattage throughout the entire off-cycle duration. *Id.*

In the April 2022 NOPR, DOE discussed the recommendation of the ASRAC Working Group (Docket No.

[45] A crankcase heater prevents refrigerant migration and mixing with the crankcase oil when the compressor is off by heating the crankcase of the compressor. A receiver heater warms refrigerant in the receiver to prevent flooded starts of the compressor and cycling on low pressure to reduce the potential for compressor damage. Both heaters are used for outdoor dedicated condensing units in colder climates.

[46] Fans using periodic stir cycles are tested at the greater of a 50 percent duty cycle or the manufacturer's default. Fans with two-, multi-, or adjustable-speed controls are tested at the greater of 50% fan speed or the manufacturer's default fan speed. Fans with no controls are tested at their single operating point. (*See* 10 CFR part 431, subpart R, appendix C, section 3.3.3.)

EERE–2015–BT–STD–0016, No. 56,[47] Recommendation #6) to revise the off-cycle test procedure to account for all other components that consume energy during the off-cycle, such as pan heaters, crankcase heaters, and controls. 87 FR 23920, 23953. DOE noted that AHRI 1250–2020 includes a method for determining energy consumption during off-cycle for many of these components. *Id.*

DOE is adopting the off-cycle procedure in sections C3.5, C4.2, and Table C3 in AHRI 1250–2020 with some modifications. The following sections describe DOE's modifications to the off-cycle test method and metric in more detail.

a. Off-Cycle Test Duration and Repetition

The current DOE test procedure references the 30-minute off-cycle test duration prescribed in section C3.6 of AHRI 1250–2009. AHRI 1250–2020 was updated to include two off-cycle test durations: (1) 30 minutes for evaporator fans and ancillary equipment with controls that are time-varying or respond to ambient or refrigerant temperatures (*e.g.,* a crankcase heater or fan cycling control), and (2) 5 minutes for evaporator fans and ancillary equipment without such controls.

DOE has concluded that these durations balance the need to minimize test burden with the need for an accurate and representative test method. In the April 2022 NOPR, DOE proposed to reference these test durations. 87 FR 23920, 23954.

AHRI 1250–2020 also added two sets of test repetition requirements: one for evaporator fans and ancillary equipment with controls that are time-varying or respond to ambient or refrigerant temperatures (*e.g.,* a crankcase heater or fan cycling control), and one for evaporator fans and ancillary equipment without such controls. For the former, AHRI 1250–2020 requires that the off-cycle test for each applicable load point[48] consists of three initial test cycles, with the potential for three supplemental cycles. As discussed in the April 2022 NOPR, AHRI 1250–2020 only requires the three supplemental tests if the integrated power of the first three cycles is not within 2 percent of the average of the first three cycles. 87 FR 23920, 23954. If the same variation occurs for the supplemental test cycles, then AHRI 1250–2020 requires that off-cycle power be reported as the maximum value of all six integrated power readings. Alternatively, for equipment lacking evaporator fans and ancillary equipment controls, AHRI 1250–2020 requires measuring integrated power over a single cycle. A summary of test durations and fan settings based on fan control configuration and ancillary equipment control configuration is listed in Table III.5.

TABLE III.5—OFF-CYCLE TEST SETTINGS AND DURATIONS

Fan control configuration	Ancillary equipment control configuration	Fan setting for test	Test duration
No Control	No Control	Default setting, as shipped	5 minutes.
No Control	With Control	Default setting, as shipped	30 minutes.
User-Adjustable Speed Controls.	No Control	The greater of 50% fan speed or the manufacturer's default fan speed.	5 minutes.
User-Adjustable Speed Controls.	With Control	The greater of 50% fan speed or the manufacturer's default fan speed.	30 minutes.
User-Adjustable Stir Cycles	With or Without Control	The greater of a 50% duty cycle or the manufacturer default..	The greater of 30 minutes or three full "stir cycles."
Non-User Adjustable Controls.	With or Without Control	Default setting, as shipped	30 minutes.

DOE has concluded that the repetition requirements specified by AHRI 1250–2020 are adequate and not overly burdensome. If the variance is small among the first three cycles, then the testing burden is reduced by not requiring any more cycles. If variance exceeds 2 percent of the average when three additional cycles are taken, then the conservative approach is taken by reporting the maximum integrated power reading, and test burden is reduced by not requiring additional tests. In the April 2022 NOPR, DOE proposed to adopt the repetition requirements included in AHRI 1250–2020. 87 FR 23920, 23954.

In response to the off-cycle test durations and repetitions proposed in the April 2022 NOPR, the Efficiency Advocates stated that they supported updating off-cycle testing to include a unit's total input wattage. (Efficiency Advocates, No. 37 at p. 1) Lennox supported DOE proposals regarding off-cycle test duration and repetition. (Lennox, No. 35 at pp. 4–5) In this final rule, DOE is adopting the off-cycle test duration and repetition test procedures as proposed.

b. Off-Cycle Operating Tolerances and Data Collection Rates

In the April 2022 NOPR, DOE proposed to adopt Section C3.5 of AHRI 1250–2020 to establish off-cycle data collection requirements in the DOE test procedure. 87 FR 23920, 23955. AHRI 1250–2020 excludes the first 10 minutes that follow the termination of the compressor on-cycle interval from the general operating tolerances (indoor/outdoor temperatures and power readings) established for the on-cycle steady state test because during this time period, the test room conditioning equipment is transitioning from steady state on-cycle operation into off-cycle operation.

Additionally, AHRI 1250–2020 requires that the minimum data collection rate be increased (with respect to steady-state requirements) from 30 to 60 test readings per hour for temperature measurements and condensing unit electric power measurements, and from 3 to 60 test readings per hour for unit cooler electric power measurements. AHRI 1250–2020 also requires that off-cycle power measurements be integrated and averaged over the recording interval with a sampling rate of no less than 1 second unless an integrating watt/hour meter is used.

In response to the April 2022 NOPR, Lennox commented that it supports DOE's off-cycle power measurement proposals but requested clarification on

[47] Appliance Standards and Rulemaking Federal Advisory Committee Refrigeration Systems Walk-in Coolers and Freezers Term Sheet, available at *www.regulations.gov/document/EERE-2015-BT-STD-0016-0056.*

[48] Off-cycle load points are discussed later in this section.

unit cooler ''steady-state ambient conditions,'' specifically whether 35 °F and −10 °F for unit cooler refers to air entering dry-bulb in Tables 16 and 17 of AHRI 1250–2020. (Lennox, No. 35 at pp. 4–5) DOE clarifies that the unit cooler ''steady-state ambient conditions'' of 35 °F and −10 °F refer to the entering air dry-bulb temperatures of medium-temperature and low-temperature unit coolers, respectively. DOE did not receive any additional comments on this topic and is adopting section C3.5 of AHRI 1250–2020 for off-cycle operating tolerances and data collection requirements, as proposed.

c. Off-Cycle Load Points

Currently, the DOE test procedure specifies measuring off-cycle evaporator fan power and provides no ambient condition detail; however, DOE expects that the integrated power of ancillary equipment may vary with ambient conditions depending on the refrigeration system design. Consequently, in the April 2022 NOPR, DOE proposed that the off-cycle power test described in section III.G.1.a of this document be run at each steady-state ambient test condition as specified in Tables 4 through 17 of AHRI 1250–2020. 87 FR 23920, 23955. Accordingly, DOE proposed that refrigeration systems with dedicated condensing units located indoors would evaluate off-cycle power at a single outdoor ambient condition (90 °F dry-bulb), while systems with dedicated condensing units located outdoors would determine off-cycle power at three ambient conditions (95 °F, 59 °F, and 35 °F dry-bulb). The measured integrated off-cycle power results would then be used to calculate AWEF2, as described in the following section.

In response to the April 2022 NOPR, KeepRite commented that the benefit from additional off-cycle power tests is minimal, capturing less than 1 percent of total system energy. (KeepRite, No. 36 at p. 3) DOE acknowledges that off-cycle power tests account for significantly less energy consumption than on-cycle tests. However, DOE's testing using the three ambient temperature off-cycle load points in AHRI 1250–2020 has measured up to 60 percent more off-cycle power use than the off-cycle power measurements in the current test procedure. This result indicates that the current test procedure does not fully represent off-cycle power use for walk-in refrigeration systems.

HTPG disagreed with the additional off-cycle testing requirement proposed in the April 2022 NOPR (HTPG, No. 32 at p. 6) and stated that it would increase test burden. (HTPG, No. 32 at p. 8) AHRI-Wine stated that they expect the change related to off-cycle power measurement requirements will increase test burden. (AHRI-Wine, No. 30 at p. 3) DOE acknowledges that adopting the off-cycle power measurements in AHRI 1250–2020 may incrementally increase test time. However, in its testing, DOE has found that conducting off-cycle power measurements accounts for less than 10 percent of the overall setup and test duration for walk-in refrigeration systems.

Lennox stated that using a single condition to measure off-cycle power may not be sufficient for indoor matched systems. (Lennox, No. 35 at p. 5) Lennox also recommended working with industry to establish running conditions for equipment that is not part of a matched pair. *Id.* DOE notes that the number and specified conditions of off-cycle tests correspond to the number and specified conditions of the refrigeration capacity tests that are run for each unit. Outdoor units have three capacity tests and three ambient conditions to represent the three ambient conditions that the unit would be exposed to, therefore they have three off-cycle tests. Indoor units have one capacity test at one ambient condition that the unit would be exposed to, therefore they have one off-cycle test. The ambient conditions inside the walk-in box do not fluctuate and therefore one ambient condition is representative for both on-cycle and off-cycle tests. DOE has concluded that this is the most appropriate approach to balance test procedure consistency and test burden.

DOE is adopting the off-cycle test points for (1) the A test specified in AHRI 1250–2020 for fixed-capacity refrigerator and freezer matched-pair and dedicated condensing units located indoors, (2) the A, B, and C tests specified in AHRI 1250–2020 for refrigerator and freezer matched-pair and dedicated condensing units located outdoors, and (3) the A test specified in AHRI 1250–2020 for refrigerator and freezer unit coolers. DOE clarifies that a single off-cycle test is representative for both split-system unit coolers and indoor matched systems.

d. AWEF2 Calculations

In the April 2022 NOPR, DOE proposed to adopt the off-cycle calculations in AHRI 1250–2020, which replace integrated off-cycle evaporator fan power with the combined integrated off-cycle power from the unit cooler and condensing unit in each equation. 87 FR 23920, 23955. Additionally, DOE proposed to adopt the off-cycle calculations in AHRI 1250–2020, which replace integrated off-cycle fan power with integrated off-cycle power in the unit cooler equation. *Id.* This aspect of the unit cooler test method is consistent with the current method specified in appendix C to subpart R of 10 CFR part 431.

For outdoor refrigeration systems, DOE proposed to deviate from the AHRI 1250–2020 calculations for off-cycle energy use in the April 2022 NOPR. 87 FR 23920, 23955. DOE notes that the AHRI 1250–2020 equations for average refrigeration system total power input for bin temperature T_j, (*e.g.,* Equation 13), do not appear to use off-cycle power values for the unit cooler and/or the condensing unit that vary with T_j. In fact, there are no equations providing the off-cycle power for either component as a function of T_j in section 7 of AHRI 1250–2020, such as there are for net capacity and on-cycle power input (*e.g.,* Equations 14 through 17). Since the off-cycle power may vary as a function of outdoor temperature as discussed previously, DOE proposed in the April 2022 NOPR to adopt instructions for calculating off-cycle power as a function of outdoor temperature based on the measurements made at the three outdoor test condition temperatures. 87 FR 23920, 23955–23956.

For condensing unit off-cycle power, DOE proposed in the April 2022 NOPR to require that off-cycle power for T_j less than or equal to 35 °F would be equal to the power measured for the test condition C off-cycle power test. 87 FR 23920, 23956. For T_j higher than 95 °F, DOE proposed that that off-cycle power would be equal to the power measured for the test condition A off-cycle power test. *Id.* Between these two temperatures, DOE proposed that condensing unit off-cycle power would be determined based on the test condition B and C measurements when T_j is below 59 °F, and based on the A and B measurements when it is above 59 °F, similar to Equations 14 through 17 for on-cycle capacity and power in AHRI 1250–2020. *Id.*

For unit cooler off-cycle power, DOE proposed in the April 2022 NOPR that the three unit cooler off-cycle power measurements taken when testing a matched-pair or single-packaged dedicated system would be averaged, and that the resulting average, with no dependence on T_j, would be used in the AWEF2 calculations. *Id.*

DOE requested comment on its proposals to align the test procedures for appendix C1 with AHRI 1250–2020, except for the use of off-cycle power measurements in the AWEF2 calculations for dedicated condensing units, matched pairs, and single-

packaged dedicated systems intended for outdoor installation. *Id.* DOE also requested comment on its proposals to use three sets of unit cooler and outdoor dedicated condensing unit off-cycle measurements in the AWEF calculations. *Id.*

In response, KeepRite stated that the AWEF2 calculations could be non-representative depending on what temperature the crankcase heater turns on and recommended an option for constant crankcase heater power below the 35 °F test bins. (KeepRite, No. 36 at p. 3) DOE notes that the proposed AWEF2 calculations are incorporated from AHRI 1250–2020. DOE notes that industry agreed to these calculations during the development of AHRI 1250–2020; therefore, DOE will not consider alternative calculations for representing off-cycle dedicated condensing unit power at this time.

RSG recommended that DOE further define off-cycle unit cooler fan speed as either 50 percent of full speed or the factory low speed setting (if the low-speed setting is less than 50 percent and not adjustable by the end user). (RSG, No. 41 at p. 5) DOE notes that section 4.2 of Appendix C to AHRI 1250–2020 states that for variable-speed unit cooler fan controls, the greater of 50 percent fan speed or the manufacturer's default fan speed shall be used for measuring off-cycle fan energy. Since this is the test practice agreed on by industry, DOE is not allowing fan speeds of less than 50 percent for off-cycle unit cooler testing in this final rule.

Lennox stated that the test procedure requires three measurements at different ambient conditions for matched-pair and single-packaged dedicated systems but does not explicitly state what to do for split-system unit coolers. (Lennox, No. 35, at p. 5) Additionally, Lennox stated that a single test condition may not be sufficient for split-system unit coolers. *Id.* DOE clarifies that for matched-pair and single-packaged dedicated systems located outdoors, there are three ambient conditions at which the dedicated condensing system is tested, therefore there are three corresponding off-cycle unit cooler power measurements. These off-cycle test conditions are specified in Tables 5 and 9 of AHRI 1250–2020 for fixed-capacity matched pairs. AWEF2 is calculated as the average of these three measurements since these measurements should not vary with ambient temperature. For split-system unit coolers tested alone, there is no component exposed to outdoor ambient conditions, therefore there is only one condition at which the unit cooler is tested and one corresponding off-cycle power measurement. These conditions are listed in Tables 16 and 17 of AHRI 1250–2020. As there is only one ambient condition at which the unit cooler is tested, DOE believes that the single off-cycle measurement is sufficient for split-system unit coolers.

In this final rule, DOE is adopting the procedures as proposed in the April 2022 NOPR into appendix C1.

2. Single-Packaged Dedicated Systems

a. AHRI 1250–2020 Methods for Testing

As discussed in the April 2022 NOPR, the Direct Expansion (''DX'') dual instrumentation method is impractical for testing single-packaged dedicated systems. 87 FR 23920, 23958. AHRI 1250–2020 expanded methods of test for single-packaged dedicated systems to include air enthalpy, calorimetry, and compressor calibration. Specifically, AHRI 1250–2020 incorporates the following test procedures by reference:

(1) *Air enthalpy method:* ASHRAE 37–2009, ''Methods of Testing for Rating Electrically Driven Unitary Air-Conditioning and Heat-Pump Equipment,'' and ANSI/ASHRAE 41.6–2014, ''Standard Method for Humidity Measurement'';

(2) *Calorimeter methods:* ASHRAE 16–2016, ''Method of Testing for Rating Room Air Conditioners, Packaged Terminal Air Conditioners, and Packaged Terminal Heat Pumps for Cooling and Heating Capacity''; and

(3) *Compressor calibration methods:* ASHRAE 37–2009, ''Methods of Testing for Rating Electrically Driven Unitary Air-Conditioning and Heat-Pump Equipment,'' and ANSI/ASHRAE 23.1-2010, ''Methods of Testing for Rating the Performance of Positive Displacement Refrigerant Compressors and Condensing Units that Operate at Subcritical Temperatures of the Refrigerant.''

AHRI 1250–2020 requires two simultaneous measurements of system capacity (*i.e.,* a primary and a secondary method) for single-packaged dedicated systems, and section C9.2.1 of AHRI 1250–2020 requires that the measurements agree within 6 percent. Table C4 in AHRI 1250–2020 specifies which test methods (calorimeter, air enthalpy, compressor calibration) qualify as primary and/or secondary methods. However, as summarized in Table III.6, DOE is adopting the method of test and the test hierarchy table in AHRI 1250–2020 with one modification—the addition of a single-packaged refrigerant enthalpy method. DOE is adopting this change to support testing of multi-circuit single-packaged dedicated systems, which is discussed in detail in section III.G.2.f of this document.

TABLE III.6—SINGLE-PACKAGED SYSTEM TEST METHODS AND TEST HIERARCHY

Method of test	Test hierarchy
Balanced Ambient Indoor Calorimeter	Primary.
Balanced Ambient Outdoor Calorimeter	Primary or Secondary.
Indoor Air Enthalpy	Primary or Secondary.
Indoor Room Calorimeter	Primary or Secondary.
Single-packaged Refrigerant Enthalpy [49]	Secondary.
Outdoor Room Calorimeter	Secondary.
Outdoor Air Enthalpy	Secondary.
Compressor Calibration	Secondary.

b. Waivers

As discussed in the April 2022 NOPR, DOE granted a waiver to Store It Cold for single-packaged dedicated systems on August 9, 2019. 87 FR 23920, 23956. DOE also granted waivers to Air Innovations, CellarPro, Vinotemp, and Vinotheque for walk-in refrigeration systems used in wine cellar applications, where some of the basic models included in these waivers were single-packaged dedicated systems.[50] The alternate test methods included in each of these waivers require the

[49] As described in section III.G.2.f of this document, this method of test does not apply to CO_2 single-packaged units.

[50] Table III.1 lists the manufacturers that have received a test procedure waiver or interim waiver for walk-in refrigeration systems designed for wine cellar applications.

specified basic models to be tested in accordance with the air enthalpy methods specified in ASHRAE 37–2009 for testing single-packaged dedicated systems, which is now referenced by AHRI 1250–2020. Additionally, DOE granted an interim waiver to RSG for multi-circuit single-packaged dedicated systems (''the RSG waiver''). 87 FR 43808. The alternate test method included in that waiver is further discussed in sections III.G.2.d through III.G.2.f of this document.

In appendix C1, DOE is referencing the methods of test for single-packaged dedicated systems from section C9 of AHRI 1250–2020, with some modifications. Since appendix C1 will be required on the compliance date of any amended energy conservation standards, were such standards to be adopted, the current test procedure waivers for specified single-packaged basic models will expire on the compliance date of appendix C1.

c. Suitability of the Single-Packaged Test Methods in AHRI 1250–2020

In the April 2022 NOPR, DOE discussed the suitability of the AHRI 1250–2020 test methods for single-packaged dedicated systems. 87 FR 23920, 23957. Specifically, DOE discussed stakeholder feedback from the June 2021 RFI that freezing of the calorimetry loop and the need for a pressure equalizing device on the test chamber are potential issues with the ASHRAE 16–2016 calorimeter method. DOE has tested multiple single-packaged dedicated systems at multiple labs and did not observe freezing of the calorimetry loop. Therefore, DOE has determined that the ASHRAE 16–2016 calorimetry methods are suitable for testing single-packaged dedicated systems. Furthermore, DOE concluded that the equalizer device for calorimeter room testing, which is required in ASHRAE 16–2016, is not necessary for the testing of single-packaged dedicated systems. As a result, DOE did not propose to require an equalizer device for calorimeter room testing in the April 2022 NOPR. *Id.* Therefore, in the April 2022 NOPR, DOE proposed to adopt the ASHRAE 16–2016 methods of test as referenced in AHRI 1250–2020 to provide flexibility to manufacturers.

DOE further discussed in the April 2022 NOPR that its testing on single-packaged dedicated systems using the room calorimeter and air enthalpy methods as described in AHRI 1250–2020 appropriately accounted for the thermal losses that are typical for this equipment. *Id.* DOE additionally noted that while there may not be extensive experience applying these test methods to walk-in refrigeration systems, all the proposed test methods have been evaluated and are used extensively for testing other heating, ventilation, and air-conditioning (''HVAC'') equipment. *Id.* Therefore, in the April 2022 NOPR, DOE tentatively determined that these methods are representative of single-packaged dedicated system energy use and proposed to adopt the single-packaged dedicated system test procedure in AHRI 1250–2020 with the modifications outlined in sections III.G.2.d and III.G.2.e of this document. *Id.*

In response to the April 2022 NOPR, the CA IOUs commented that they support DOE including a test method for single-packaged dedicated systems. (CA IOUs, No. 42 at p. 6) Based on DOE's experience testing this equipment and the comments received, DOE is adopting the test procedures for single-packaged dedicated systems in AHRI 1250–2020 as proposed in the April 2022 NOPR into appendix C1.

d. Single-Packaged Refrigerant Enthalpy Method

In the April 2022 NOPR, DOE proposed to adopt a single-packaged refrigerant method similar to the alternate test procedure outlined in RSG's waiver request. 87 FR 23920, 23958. On July 22, 2022, DOE issued an interim waiver to RSG for testing single-packaged dedicated systems with multiple refrigeration circuits using a modified refrigerant enthalpy method. 87 FR 43808.

As previously discussed, AHRI 1250–2020 includes four potential primary and six potential secondary test methods for testing single-packaged dedicated systems (*see* Table C4 in AHRI 1250–2020). The refrigerant enthalpy method is not included in these lists. The procedure that DOE proposed to adopt in the April 2022 NOPR uses the refrigerant-side measurements of the DX calibrated box method in section C8 of AHRI 1250–2020 while simultaneously using one of the ''primary'' methods listed in Table C4 in AHRI 1250–2020 for single-packaged methods of test as an air-side measurement. The details of the primary test methods were discussed in the April 2022 NOPR. 87 FR 23920, 23958.

In the April 2022 NOPR, DOE requested comment on its proposed procedure for testing single-packaged dedicated systems. AHRI recommended allowing DX dual instrumentation testing, since requiring air-side enthalpy testing would impose considerable test burden on test labs that do not have air-side measurement capacity. (AHRI, No. 30 at p. 7) Lennox stated that it can support the proposed refrigerant enthalpy approach as a secondary approach but recommended that the DX dual instrumentation method be maintained as an option. (Lennox, No. 35 at p. 5) Lennox also commented that requiring the air enthalpy test method would impose significant test burden. *Id.* In response to the recommendation by Lennox to maintain the DX dual instrumentation method, DOE's testing, in addition to the information received in the waivers for testing of single-packaged dedicated systems, indicates that the DX dual instrumentation method is inappropriate for single-packaged units because the internal volume of the added liquid line and mass flow meters adds substantially to the required refrigerant charge, and the entire assembly adds substantial pressure drop.[51] However, DOE notes that the DX dual instrumentation method continues to be an accurate test method for dedicated condensing units tested alone. Additionally, in response to Lennox's comment regarding the burden associated with the air enthalpy method, DOE has determined that the representativeness achieved through this method outweighs the additional burden.

AHRI and Lennox commented that piercing a refrigeration system to use the refrigerant enthalpy as a secondary check may not duplicate the primary result. (AHRI, No. 30 at p. 7; Lennox, No. 35 at p. 5) HTPG disagreed with the proposal to use the refrigerant enthalpy test for single-packaged dedicated units, as they are critically charged and piercing their lines could affect measured capacity. (HTPG, No. 32 at p. 6) The proposed procedure requires a primary test to be completed before the system is pierced. The capacity measured from the primary test would be compared to the capacity measured from the secondary test to ensure that the capacity is not affected from piercing the refrigeration system. Based on its testing, DOE has determined that a secondary test that does not materially alter the system operation would duplicate, and serve as a check for, the primary test. DOE also notes that there are secondary test options provided in Table C4 of AHRI 1250–2020 that do not require piercing of the refrigerant lines.

Lennox also stated that the refrigerant enthalpy test should be allowed to penetrate the system for the primary test since the secondary test would require the system to be penetrated. (Lennox, No. 35 at p. 5) DOE interprets this comment to be a request to allow the DX

[51] *See* Store It Cold Decision and Order, 84 FR 39286, 39287 (Aug. 9, 2019).

dual instrumentation test, or other refrigerant enthalpy tests, as a primary test for single-packaged dedicated systems. As discussed previously, DOE has concluded that the DX dual instrumentation test is not representative for single-packaged dedicated systems because it does not account for thermal losses. DOE reiterates that the purpose of the primary test, conducted prior to penetration of the refrigerant system, is to compare the primary and secondary results to ensure that the system is not affected from penetrating the liquid lines.

AHRI-Wine stated that they do not support the proposed refrigerant enthalpy test procedure because they do not see an advantage unless the method is used in parallel with others. (AHRI-Wine, No. 30 at p. 3) DOE notes that the single-packaged refrigerant enthalpy test procedure would be used only as a secondary test when paired with one of the primary options provided in Table C4 of AHRI 1250–2020.

RSG agreed with DOE's proposed test procedure. (RSG, No. 41 at p. 2) DOE is adopting the single-packaged refrigerant enthalpy test method as a secondary test as proposed in the April 2022 NOPR into appendix C1.

e. Calibrated Box Method for Single-Packaged Dedicated Systems

In the RSG waiver DOE allowed RSG to use a modified version of the calibrated box method. 87 FR 43808, 43813–43814. As discussed in the notification of interim waiver, the modified calibrated box method involves mounting the system on the calibrated box, like its installation on a walk-in for field use and exchanging air with the box interior to cool it. 87 FR 43808, 43812. The exterior of the calibrated box would be conditioned such that the air conditions entering the single-packaged dedicated system condenser match the specified targets. The warm condensing unit portion of the single-packaged dedicated system and its condenser discharge air may in some cases add to the thermal load imposed on the calibrated box. The interim waiver therefore provided additional optional test methods to quantify this additional thermal load on the calibrated box, and to adjust for it in the determination of system capacity. Determining the additional thermal load requires temperature sensors mounted on the box exterior surface for box calibration and box load determination, rather than measuring air temperature just outside the box (the approach described for the calibrated box method in section C8 of AHRI 1250–2020). Since the modified calibrated box method accounts for the thermal losses associated with single-packaged dedicated systems and is very similar to the indoor room calorimeter method, DOE tentatively determined in the RSG waiver that it would be appropriate for the calibrated box method to be a primary test method (*i.e.,* the capacity determined from this method would be used for rating purposes) 87 FR 43808, 43812. DOE proposed to adopt the method described in the RSG waiver in the April 2022 NOPR. *Id.* A full discussion of the test procedures proposed by RSG are discussed in the interim waiver notification. *Id.*

As mentioned previously, DOE received no stakeholder comments on the RSG waiver. Therefore, DOE is adopting the test provisions outlined in the RSG waiver in addition to the test provisions for single-packaged dedicated systems proposed in the April 2022 NOPR.

f. Multi-Circuit Single-Packaged Dedicated Systems

As discussed in the April 2022 NOPR, neither the current DOE test procedure nor AHRI 1250–2020 provides a method for testing single-packaged dedicated systems with multiple refrigeration circuits. As previously discussed, DOE granted RSG an interim waiver for testing multi-circuit single-packaged dedicated systems. 87 FR 43808. This test procedure is based on the single-packaged refrigerant enthalpy method discussed in section III.G.2.d of this document. The procedure is duplicated for each refrigeration circuit contained in the unit such that each circuit returns mass flow, enthalpy in, and enthalpy out values. The resultant mass flow and enthalpy values are used to calculate the gross refrigeration capacity for each circuit. Each circuit's gross capacity is then summed to determine the total capacity of the system.

In the April 2022 NOPR, DOE tentatively determined that the alternate approach would provide a reasonable method for determining the capacity of multi-circuit single-packaged dedicated systems. 87 FR 23920, 23958. However, DOE had also determined the approach may not adequately capture the heat loss associated with single-packaged dedicated systems; therefore, DOE proposed to adopt the test procedures in section C8 of AHRI 1250–2020 for testing single-packaged dedicated systems, with the additional requirement that the primary test would be an indoor air refrigeration capacity test where the allowable refrigeration capacity heat balance is 6 percent. *Id.*

In response to the April 2022 NOPR, HTPG commented that it agreed with DOE's proposal for testing multi-circuit single-packaged dedicated systems. (HTPG, No. 32 at p. 6) DOE is adopting the test procedure as proposed in the April 2022 NOPR into appendix C1.

g. CO_2 Single-Packaged Dedicated Systems

As discussed in the April 2022 NOPR, the current DOE test procedure for single-packaged dedicated systems does not provide representative values for single-packaged dedicated systems that use CO_2 as a refrigerant. 87 FR 23920, 23959. However, the single-packaged dedicated system test methods in AHRI 1250–2020 use air enthalpy measurements and do not require any refrigerant mass flow measurements. In the April 2022 NOPR, DOE proposed that single-packaged dedicated systems that use CO_2 as a refrigerant be tested using the test methods for single-packaged dedicated systems outlined in AHRI 1250–2020. *Id.*

In response, HTPG stated that it agreed with DOE's proposal for the air enthalpy test procedure for CO_2 single-packaged dedicated systems. (HTPG, No. 32 at p. 6) DOE is adopting the test as proposed in the April 2022 NOPR into appendix C1.

3. Detachable Single-Packaged Dedicated Systems

As discussed in section III.A.2.g, DOE is aware of refrigeration systems that are installed with the evaporator unit exchanging air through the wall or ceiling of the walk-in, but with the condensing unit installed remotely and connected to the evaporator with refrigerant lines. DOE has defined this equipment as a ''detachable single-packaged dedicated system.'' Neither appendix C nor AHRI 1250–2020 contain provisions for testing detachable single-packaged dedicated systems. DOE is aware that, currently, detachable single-packaged dedicated systems may be tested either with the condensing unit and unit cooler housings separated or mounted adjacent to each other, the latter of which is the more common arrangement for single-packaged dedicated systems. Testing in the latter arrangement would account for the heat loss of the evaporator installation, and any additional heat loss from the condensing unit being mounted to the evaporator unit; therefore, in the April 2022 NOPR, DOE proposed as part of the new appendix C1 and 10 CFR 429.53(a)(2)(i)(C) that detachable single-packaged dedicated systems would be tested using the test procedure for

single-packaged dedicated systems. 87 FR 23920, 23959.

HTPG and Lennox agreed with the proposal. (HTPG, No. 32 at p. 6; Lennox, No. 35 at p. 5) AHRI, on behalf of wine cellar manufacturers stated that the proposal is sufficient. (AHRI-Wine, No. 30 at p. 4) RSG agreed with the proposal if the calibrated box method is included in allowable test methods. (RSG, No. 41 at p. 2) As discussed in section III.G.2.e, DOE is adopting the test provisions outlined in the interim waiver granted to RSG in July 2022. These include a calibrated box test procedure for single-packaged dedicated systems.

AHRI stated that the current test procedure is sufficient. (AHRI, No. 30 at p. 8) DOE interprets this comment as AHRI stating that the DX dual instrumentation method is sufficient for detachable single-packaged dedicated units. As discussed in section III.G.2.d, DOE's testing, in addition to information received in waivers for testing of single-packaged dedicated systems, indicates that the DX dual instrumentation method is inappropriate for single-packaged units.

Since detachable single-packaged dedicated systems have thermal losses similar to those for single-packaged dedicated systems, DOE is adopting the test procedure for detachable single-packaged dedicated systems as proposed in the April 2022 NOPR (87 FR 23920, 23959) into appendix C1.

AHRI-Wine also requested clarification for whether wine cellar manufacturers must test all configurations or the most common if multiple configurations apply to a single system. (AHRI-Wine, No. 30 at p. 2) The definition of ''detachable single-packaged dedicated system'' that DOE is adopting in this final rule states that it is a system that can be configured as either a split system or as a single-packaged dedicated system. Based on the procedure DOE is adopting, such a system would be tested as a single-packaged dedicated system.

4. Attached Split Systems

As discussed in section III.A.2.f, DOE is aware of refrigeration systems that are sold as matched systems and permanently attached to each other with beams. In this final rule, DOE is defining these systems as ''attached split systems.'' DOE has confirmed through testing that these systems still experience some heat leakage when compared to traditionally installed systems that have the dedicated condensing unit and the unit cooler in separate housings. However, this heat leakage has not been studied extensively and DOE is aware that it may be difficult to calculate.

DOE proposed in the April 2022 NOPR testing attached split systems as a matched pair using refrigerant enthalpy methods. 87 FR 23920, 23959. HTPG agreed with the proposal. (HTPG, No. 32 at p. 7) In this final rule, DOE is adopting the test procedure as proposed in the April 2022 NOPR into appendix C1 and 10 CFR 429.53(a)(2)(i)(D).

5. Systems for High-Temperature Freezer Applications

As discussed in the April 2022 NOPR, DOE recognizes that testing high-temperature freezer refrigeration systems at a consistent test condition is important to ensure test procedure consistency and to provide comparable performance values in the market. 87 FR 23920, 23961. DOE acknowledges that testing high-temperature freezer refrigeration systems at a temperature less than 35 °F would be more representative of their actual energy use; however, it is not clear if the potential additional test burden justifies including an additional test condition for walk-in cooler refrigeration systems. Therefore, in the April 2022 NOPR, DOE determined that medium-temperature dedicated condensing units used in high-temperature freezer applications would continue to be tested according to appendix C. *Id.*

In response to the April 2022 NOPR, HTPG stated that it agreed with DOE continuing to test high-temperature freezers in accordance with appendix C. (HTPG, No. 32 at p. 7) The Efficiency Advocates encouraged DOE to establish a standardized rating temperature for high-temperature freezers that is below 35 °F, since it is more characteristic of the temperature that these products operate between. (Efficiency Advocates, No. 37 at p. 3) As discussed in the April 2022 NOPR, DOE acknowledges that testing high-temperature freezer refrigeration systems at a temperature less than 35 °F would be more representative of their actual energy use; however, doing so would require an additional test condition. At this time, DOE does not think the relatively small gain in representativeness that this additional test condition would provide justifies the additional test burden for evaluating the performance of walk-in cooler refrigeration systems. Therefore, DOE is maintaining its determination to keep testing systems for high-temperature freezer applications as medium-temperature systems.

6. Systems for High-Temperature Applications

As discussed previously in section III.A.2.c, DOE is aware of wine cellar (high-temperature) refrigeration systems that fall within the definition of ''walk-in'' but operate at a temperature range of 45 °F to 65 °F and, therefore, are incapable of being tested in a manner that would yield a representative average use cycle under the current version of the walk-in test procedure. DOE has granted waivers or interim waivers to the manufacturers listed in Table I.1 for an alternate test procedure for specific basic models of single-packaged dedicated systems, matched pair, and unit cooler-only high-temperature refrigeration systems.

In the April 2022 NOPR, DOE proposed to include provisions for testing and rating high-temperature matched-pair systems that specify an air entering dry-bulb temperature of 55 °F. 87 FR 23920, 23961. DOE also proposed to test high-temperature refrigeration systems that are single-packaged dedicated systems using one of the following methods, as specified in Table C4 of AHRI 1250–2020: indoor air enthalpy, outdoor air enthalpy, compressor calibration, indoor room calorimeter, outdoor room calorimeter, balanced ambient indoor calorimeter, or balanced ambient outdoor calorimeter. *Id.*

In response to the April 2022 NOPR, the Efficiency Advocates commented that they support adding unique test procedures for high-temperature walk-ins. (Efficiency Advocates, No. 37 at p. 2)

The alternate test approach in the waivers requires that testing of ducted units be conducted at 50 percent of the maximum external static pressure (''ESP''), subject to a tolerance of −0.00/+0.05 in. wc.[52] Consistent with the waivers that DOE has granted for high-temperature refrigeration systems, in the April 2022 NOPR DOE proposed that testing for ducted systems be conducted with ducts fitted and at 50 percent of the unit's maximum ESP, subject to a tolerance of −0.00/+0.05 in. wc. *Id.* DOE proposed to include this provision for all ducted units (*i.e.,* any ducted low-temperature, medium-temperature, or high-temperature refrigeration system). *Id.* DOE also proposed clarifying that if testing using either the indoor or outdoor air enthalpy method, which includes a measurement of the air volume rate, the airflow measurement apparatus fan would be

[52] Inches of water column (''in. wc'') is a unit of pressure conventionally used for measurement of pressure differentials.

adjusted to set the ESP—otherwise, the ESP could be set by symmetrically restricting the outlet of the test duct. *Id.* If the ESP is not provided, DOE proposed that it would be set such that the air volume rate for the test is equal to two-thirds of the value that is measured for zero ESP operation. *Id.*

AHRI-Wine stated that wine cellar manufacturers agree with the proposed ESP requirements for ducted units; however, they commented that the proposed procedure for when ESP is not provided represents an unrealistic reduction in airflow. (AHRI-Wine, No. 30 at p. 4) AHRI-Wine provided no data or alternative recommendation for a procedure when ESP is not provided. DOE has determined that the two-thirds air volume rate is an appropriate value to use when no maximum ESP is provided. DOE notes that manufacturers can provide maximum ESP to avoid testing using the two-thirds air volume rate.

AHRI-Wine also commented that wine cellar manufacturers seek clarification about whether the air surrounding the ducted evaporator or ducted condenser must be at the required 90 °F indoor temperature. (AHRI-Wine, No. 30 at p. 3) Furthermore, wine cellar manufacturers recommended that all wine cellar units, regardless of specified condenser location, be tested only at 90 °F to clarify the test procedure and reduce test burden. *Id.* DOE incorporates by reference section 7.3.3.3 of ASHRAE 37–2009, which includes provisions for testing ducted units and accounting for duct losses; therefore, DOE has determined that the ambient temperature surrounding ducts should not affect the test results. Consistent with appendix C and the wine cellar test procedure waivers, DOE is requiring in appendix C1 that dedicated condensing units located outdoors to be tested at three temperatures—35 °F, 59 °F, and 95 °F—while dedicated condensing units located indoors must be tested at 90 °F.

7. Variable-, Two-, and Multiple-Capacity Systems

a. Dedicated Condensing Units

In the April 2022 NOPR, DOE proposed test procedures for variable-, two-, and multiple-capacity condensing units. The proposals addressed numerous aspects of how such systems would be tested, including (a) test conditions (saturated suction temperature and suction temperature) for part-load operation, (b) compressor operating levels for part-load testing, (c) default unit cooler fan wattage to use in AWEF2 calculations as a function of compressor operating level, and (d) calculation of AWEF2 using multiple levels of compressor operation. 87 FR 23920, 23962–23967.

(1) Need for Test Procedures for Variable-, Two- and Multiple-Capacity Condensing Units

In response to the DOE's proposal, some comments addressed the need for test procedures for multi-/variable-capacity condensing units and the potential utility and cost-effectiveness of such systems. Specifically, AHRI and KeepRite commented that the market for such systems is very small, and that the small market size is not driven by lack of test method. AHRI and KeepRite further stated that variable-capacity system purchases are driven by temperature operating tolerance requirements rather than energy savings and suggested that energy cost savings would not offset upfront purchase and installation costs. (AHRI, No. 30 at p. 8; KeepRite, No. 36 at p. 3) National Refrigeration commented that there is no need for multi-/variable-capacity test procedures at this time, indicating also that there is limited to no evidence that variable-capacity units are more efficient. (National Refrigeration, No. 39 at p. 2) In response, DOE notes that the DOE test procedures already include test methods for variable-, two-, and multi-capacity matched-pair refrigeration systems through incorporation by reference of AHRI 1250–2009. With the proposal and this final rule, DOE is extending this test method to dedicated condensing units tested alone, which was included in the ASRAC Term Sheet. (Docket EERE–2015–BT–STD–0016, No. 56 at p. 3, recommendation #6)

Despite questions about the need for test procedures for variable-, two-, and multi-capacity condensing units, AHRI and KeepRite did indicate that the proposal was reasonable. (AHRI, No. 30 at p. 8; KeepRite, No. 36 at p. 4) Other commenters' overall comments were generally supportive regarding DOE's proposed test methods. (RSG, No. 41 at p. 2; CA IOUs, No. 42 at p. 1; Efficiency Advocates, No. 37 at p. 2)

(2) Unit Cooler Fan

DOE requested comment on its assumptions regarding the unit cooler with which a two-, multi-, or variable-capacity condensing unit rated alone would be paired in the field, including whether the unit cooler fan(s) would have a full speed and a half-speed, the compressor operating level at which the unit cooler fan(s) would switch to half-speed, and the half-speed wattage of the fan(s). 87 FR 23920, 23966.

AHRI and KeepRite commented that a calculation method should be allowed for unit cooler fan power rather than just high or low speed, indicating that some variable compressor systems would reduce capacity only to 75 percent of full capacity and would not realize a gain from unit cooler fan power. (AHRI, No. 30 at pp. 8–9; KeepRite, No. 36 at p. 4) DOE understands this comment to mean that there would be limited efficiency gain for a variable-speed compressor whose lowest capacity is no lower than 75 percent of full capacity, and that it would be important to consider optimization of unit cooler fan speed. National Refrigeration commented that requiring a variable-speed or two-speed unit cooler fan would be ideal, but the effectiveness is unknown and more research is necessary to determine how to handle it. (National Refrigeration, No. 24 at p. 2) Lennox commented that unit coolers with which two-, multi-, and variable-capacity dedicated condensing units are paired may use technology in addition to two-speed fans, such as electronic expansion valves (''EEVs''), dampers, or other electronic control valves. (Lennox, No. 35 at p. 6)

In response, DOE notes that if a manufacturer decides to optimize unit cooler fan operation or other design details for a given condensing unit's compressor technology, the manufacturer has the option of certifying the two components together as a matched pair—this is already an established part of the test procedure for outdoor matched pairs, and DOE is extending the approach to indoor matched pairs in this document (*see* section III.G.7.b of this document).

DOE notes that the test method under consideration applies to dedicated condensing units tested alone—these units would be paired with a unit cooler in the field, so it is not clear what technology the paired unit cooler might have. For this reason, DOE developed the proposal for two-, multi-, and variable-capacity dedicated condensing units based on the assumption of limited unit cooler technology options. DOE's analysis suggests that use of part-load compressor operation has limited to no efficiency benefit when the unit cooler fan(s) run at full speed. However, DOE is aware that many unit coolers are now sold with two-speed fan motors to meet the current energy conservation standards. (No. 44 at p. 2) Hence, DOE determined that it is reasonable to assume that field matches of dedicated condensing units tested alone would involve, at minimum, a unit cooler with

a two-speed fan. DOE does not have information that would suggest that unit coolers sold alone would typically have fully variable-speed fans, EEVs, dampers, or other electronic control valves. For this reason, DOE does not believe it is appropriate to establish a test procedure for dedicated condensing units tested alone, assuming such technology is available in a field-paired unit cooler, therefore DOE has not modified the test procedure to reflect the potential benefits of these technologies.

Some commenters indicated that, although unit cooler fans may have two speeds, the low speed may be triggered by the off-cycle rather than by on-cycle compressor operation. (AHRI, No. 30 at p. 8; Lennox, No. 35 at p. 6; National Refrigeration, No. 39 at p. 2) As mentioned, DOE concluded that running unit cooler fans at full speed during part-load operation significantly limits the part-load efficiency benefits. Given the prevalence of unit coolers being sold with two-speed fans, DOE concludes it is reasonable to assume that such unit coolers would be controlled to allow two-speed fan operation during part-load when field-matched with a two-, multi-, or variable-speed dedicated condensing unit.

DOE requested comment on its assumptions regarding the compressor operating level at which the unit cooler fan(s) would switch from full- to half-speed operation. 87 FR 23920, 23966. AHRI commented that no change was needed, and National Refrigeration was supportive. (AHRI, No. 30 at p. 9; National Refrigeration, No. 39 at p. 2) No commenters suggested that switching to half-speed operation should occur at different compressor operating levels. Hence, DOE is finalizing the test procedure using the same 65 percent compressor operating level below which the unit cooler fan(s) would be assumed to operate at half-speed.

DOE requested comment on the proposal that the unit cooler fan half-speed power input would be 20 percent of full speed power. 87 FR 23920, 23966. Several commenters agreed with this approach. (AHRI, No. 30 at p. 9; National Refrigeration, No. 39 at p. 2; Lennox, No. 35 at p. 6) DOE is finalizing its test procedure using the 20 percent half-speed power level.

(3) Part-Load Test Conditions

DOE requested comment on the compressor part-load operating levels for multi- and variable-speed dedicated condensing units tested alone. 87 FR 23920, 23966. Lennox, AHRI, and National Refrigeration supported the proposed levels. (Lennox, No. 35 at p. 6; AHRI, No. 30 at p. 9, National Refrigeration, No. 39 at p. 2) DOE is finalizing the test procedure using the compressor part-load operating levels proposed in the April 2022 NOPR.

Regarding the test conditions proposed for part-load operation of variable-, two-, or multiple-capacity dedicated condensing units, several commenters suggested that the differing refrigerant conditions specified for the different tests were excessively complex and should be simplified. (AHRI, No. 30 at p. 9; Lennox, No. 35 at p. 6; National Refrigeration, No. 39 at p. 2) In response to DOE's specific question about whether a tabular method for specifying test operating conditions or a correlation-based approach should be used, Lennox expressed a clear preference for a tabular approach, indicating that the correlation approach may provide more flexibility but would require more data collection and should be evaluated for accuracy. (Lennox, No. 35 at p. 6) Other commenters did not express a clear position. For example, AHRI commented that, while the correlation approach may provide more flexibility, it should be used only if it is shown to be more accurate. (AHRI, No. 30 at p. 9)

DOE's intent in allowing different suction conditions for testing was to make the test method more representative of actual operation, in which unit cooler effectiveness would improve at part load, suction line pressure drop would decrease, and suction line heat transfer would be more effective. These factors would combine generally to raise the dedicated condensing unit inlet pressure (specified as saturated suction temperature in the test procedures) and also the suction temperature. 87 FR 23920, 23964.

Some commenters indicated that these variations would make little impact in test results. (Lennox, No. 35 at p. 6) DOE analyzed the proposed test conditions to evaluate this statement for outdoor refrigeration systems using R–448A, calculating the impact on compressor EER [53] and isolating the impact of the change in suction conditions as compared with the full-load test conditions,[54] and not including the potential benefits of improved condenser effectiveness at part load nor the potential change in the compressor's compression efficiency for different operating conditions. The analysis showed that, for medium-temperature dedicated condensing units, the impact of the modified suction conditions ranged from −2.3 percent (a decrease) to 7.7 percent, with an average of 2.8 percent. For low-temperature condensing units, the range of impact was from −3.0 percent to 2.4 percent, with an average of −0.2 percent. This analysis shows that an increase in saturated suction temperature improves compressor EER, while an increase in suction temperature reduces compressor EER. These factors appear to balance out on average for low-temperature systems, while for medium-temperature systems, the improvement associated with the saturated suction temperature increase makes more impact than the suction temperature increase. In addition, the results do not change significantly when considering other refrigerants commonly used in WICF refrigeration systems, *e.g.* R–404A and R–407A. For indoor medium-temperature refrigeration systems, the overall impact of the changes is less pronounced, since testing only with the A conditions using 90 °F condenser ambient air increases the impact of the refrigerant temperature rise in the suction line. For outdoor medium-temperature systems, DOE found that raising the saturated suction temperature 1 °F for all part-load conditions to 24 °F and leaving the suction temperature unchanged at 41 °F provided the best overall agreement in compressor EER compared with the average EER impact of the different proposed test conditions. Consequently, DOE is finalizing the specification of suction conditions for testing variable-, two-, and multiple-capacity dedicated condensing units with the following simplifications: For low-temperature and indoor medium-temperature dedicated condensing units, the required part-load test conditions will match the full-capacity conditions. For outdoor medium-temperature dedicated condensing units, the part-load saturated suction temperature will be raised 1 °F to 24 °F, without changing the 41 °F suction temperature requirement. DOE believes this approach provides the best balance between test procedure simplicity and providing some adjustment of operating conditions to represent the impacts of changes in unit cooler and suction line response to part load.

b. Indoor Matched Pair and Single-Packaged Units

DOE proposed in the April 2022 NOPR to establish test procedures for indoor matched-pair and single-

[53] Evaporator capacity divided by compressor input power.

[54] 23 °F saturated suction temperature and 41 °F temperature for medium-temperature systems; −22 °F saturated suction temperature and 5 °F temperature for low-temperature systems.

packaged dedicated systems. 87 FR 23920, 23966.

National Refrigeration stated that indoor matched pairs have less potential for part-load energy savings than their outdoor counterparts due to their constant condensing inlet temperature. (National Refrigeration, No. 39 at p. 2) KeepRite stated that the proposed approach for indoor matched pairs is acceptable, even though these units have even less potential for part-load energy savings due to the constant condenser inlet temperature. (KeepRite, No. 36 at p. 4) DOE understands that these commenters were referring to constant condenser air inlet temperature, which would result in constant condensing temperature. Lennox supported the proposal to establish test methods for indoor two-, multi-, or variable-capacity condensing units tested alone. (Lennox, No. 35 at p.6) No commenters indicated that DOE should not establish test methods for such systems. Hence, DOE is adopting the test method as proposed.

c. Revision to EER Calculation for Outdoor Variable-Capacity and Multiple-Capacity Refrigeration Systems

In the April 2022 NOPR, DOE proposed to revise the EER calculations for outdoor variable-capacity and multiple-capacity refrigeration systems to use a piecewise linear calculation approach rather than the parabolic equation provided in AHRI 1250–2020. 87 FR 23920, 23966. DOE did not receive any comments specifically addressing this proposal and is finalizing the test procedure with the revisions as proposed.

d. Digital Compressors

In the April 2022 NOPR, DOE discussed specific proposals associated with digital compressors. To clarify the test procedure for digital compressors, DOE proposed to define ''digital compressor'' as a compressor that uses mechanical means for disengaging active compression on a cyclic basis to provide a reduced average refrigerant flow rate in response to an input signal. 87 FR 23920, 23967. DOE received no comments specifically addressing the digital compressor definition and will adopt the definition as proposed.

As discussed in the April 2022 NOPR, DOE had conducted testing and found that the refrigerant enthalpy method for measuring capacity is accurate if the liquid subcooling at the mass flow meter is sufficiently low, as required in section C3.4.5 of AHRI 1250–2020. *Id.* DOE proposed that testing refrigeration equipment with digital compressors operating at part load may use the refrigerant enthalpy method as a secondary test method, with the following provisions and adjustments: (1) pressure and temperature measurement would be at a frequency of once per second or faster, (2) the operating tolerances for pressure and temperature at both the inlet and outlet connections and for mass flow would not apply, and (3) enthalpies determined for the capacity calculation would be based on test-period-average pressure and temperature values. *Id.*

DOE also proposed that the selection of the primary test method for measuring capacity would depend on the refrigeration system configuration. *Id.* For single-packaged dedicated systems, the test methods adopted as primary methods for any single-packaged dedicated system would be used, as discussed in section III.G.2 of this document. Matched pairs would use the same primary methods used for single-packaged dedicated systems. For dedicated condensing units, the primary methods include outdoor air enthalpy method, balanced ambient outdoor calorimeter, and outdoor room calorimeter measurements.

Lennox supported the proposals for the part-load test procedure for refrigeration systems with digital compressors. (AHRI, No. 30 at p. 10; Lennox, No. 35 at p. 7) KeepRite and AHRI commented that the refrigerant enthalpy method may be unreliable for digital compressors because they cannot achieve steady state. However, these commenters did not provide evidence that the method would be unreliable. (KeepRite, No. 36 at p. 4; AHRI, No. 30 at p. 9) KeepRite and AHRI also indicated that 1-second intervals for power measurements would not be sufficient for energy measurement of digital compressors and that integrating power meters must be used. *Id.* However, AHRI also stated that the part-load test procedure for refrigeration systems with digital compressors is sufficient as written. (AHRI, No. 30 at p. 9) AHRI provided further specific comments, including (a) wider refrigerant pressure and mass flow tolerances look acceptable, (b) the 1-second or higher data acquisition rate looks acceptable, but that industry-wide ability to sample at this rate should be assessed, (c) that when using the refrigerant enthalpy method with single-package systems with digital compressors, the existing primary methods look acceptable, and (d)–(e) when using the refrigerant enthalpy method to test matched pairs or condensing units alone with digital compressors, the existing dual instrumentation method should be an acceptable primary method for measuring capacity. (AHRI, No. 30 at pp. 9, 10)

DOE notes that the industry standard, AHRI 1250–2020, already has a requirement that energy measurements be made using an integrating watt-hour meter and that power measurements be made with a sampling rate of no less than 1 per second (*see* section C10.2.1.4 of AHRI 1250–2020)—thus, through incorporation by reference of AHRI 1250–2020, the proposal is already consistent with the KeepRite and AHRI comments regarding use of an integrating power meter for energy measurements and already adopts 1-second intervals for data acquisition. It is DOE's understanding that test laboratories already use data acquisition systems with this level of capability. As indicated, the commenters did not provide data countering the cited DOE evidence that the refrigerant enthalpy method measurement is accurate. Given the limited data available on this issue, DOE is not deviating from its proposal that the refrigerant enthalpy method only be used as a secondary capacity measurement, *i.e.,* the test procedure as finalized in this document does not allow it to be used as a primary capacity measurement as recommended by AHRI for matched pairs and dedicated condensing units tested alone. Therefore, DOE is adopting the proposals for digital compressor systems as stated in the April 2022 NOPR.

8. Defrost

The current test procedure references section C11 of AHRI 1250–2009 to measure defrost. In section C11 of AHRI 1250–2009, the moisture to provide a frost load is introduced through the infiltration of air at a 75.2 °F dry-bulb temperature and a 64.4 °F wet-bulb temperature into the walk-in freezer at a constant airflow rate that depends on the refrigeration capacity of the tested freezer unit (Equations C11 and C12 in section C11.1.1 of AHRI 1250–2009). A key issue with this approach is the difficulty in ensuring repeatable frost development on the unit under test, despite specifying the infiltration air dry-bulb and wet-bulb temperatures. For example, in addition to frost accumulating on the evaporator of the unit under test, frost may also accumulate on the evaporator of other cooling equipment used to condition the room, which could subsequently affect the rate of frost accumulation on the unit under test by affecting the amount of moisture remaining in the air.

Since there are recognized limitations to the defrost test procedure in section C11 of AHRI 1250–2009, AHRI 1250–

2020 does not include a frosted-coil test but does include provisions for a dry-coil defrost test.[55] Industry is currently evaluating how to create and validate consistent evaporator coil frost loads; therefore, in the April 2022 NOPR, DOE proposed to maintain the current calculation-based approach for estimating defrost energy consumption. Specifically, DOE proposed to incorporate by reference section C10 of AHRI 1250–2020 for unit coolers with either electric or hot gas defrost, except for section C10.2.1.1, ''Test Room Conditioning Equipment.'' At this time, DOE does not have sufficient data to fully evaluate how the test room condition requirements in section C10.2.1.1 of AHRI 1250–2020 would impact the representativeness of the test procedure during the dry-coil defrost test relative to potential additional test burden.

In response to the April 2022 NOPR, HTPG commented that it agreed with the proposal to incorporate the entirety of Section C10 of AHRI 1250–2020, except for section C10.2.1.1. (HTPG, No. 32 at p. 7) HTPG also agreed that all systems would use the same default calculated values to rate defrost power. *Id.*

The CA IOUs stated that they support DOE adopting a test method for measuring defrost energy use in a future test procedure and that if DOE adopts a test method, DOE should reconsider the frequency at which defrost is used. (CA IOUs, No. 42 at p. 2) DOE will continue to evaluate defrost energy use and may address defrost energy in a future test procedure rulemaking. In this final rule, DOE is adopting the procedures as proposed in the April 2022 NOPR in appendix C1.

a. Adaptive Defrost

Adaptive defrost refers to a factory-installed defrost control system that reduces defrost frequency by initiating defrosts or adjusting the number of defrosts per day in response to operating conditions, rather than initiating defrost strictly based on compressor run time or clock time. 10 CFR 431.303. In the April 2022 NOPR, DOE proposed to maintain its current requirements for adaptive defrost. 87 FR 23920, 23969. DOE received no comments on its proposal. In this final rule, DOE is maintaining the current regulatory approach to include the optional representation strategy for adaptive defrost.

b. Hot Gas Defrost

In the April 2022 NOPR, DOE proposed that manufacturers may account for a unit's potential improved performance with hot gas defrost in its market representations. 87 FR 23920, 23970. DOE proposed that this hot gas defrost ''credit'' may be used in marketing materials for all refrigeration system varieties sold with hot gas defrost (*i.e.,* matched pairs, standalone unit coolers, and standalone condensing units). *Id.*

However, due to the variation of hot gas defrost applications across the refrigeration systems market, and a lack of consensus on the definition of ''hot gas defrost'' systems (*see* discussion in section III.A.2.i of this document), DOE is not adopting a hot gas defrost ''credit'' for representation purposes.

9. Refrigerant Glide

Refrigerant glide refers to the increase in temperature at a fixed pressure as liquid refrigerant vaporizes during its conversion from saturated liquid (at its bubble point) to saturated vapor (at its dew point). R–404A—a common walk-in refrigerant—has very little glide, while R–407A—another common walk-in refrigerant—can exhibit glide of up to 8 °F.

The current DOE test procedure specifies unit cooler test conditions based on the dew point at the evaporator exit. For zero-glide refrigerants, the average evaporator temperature will typically be equivalent to the specified dew point. However, for high-glide refrigerants, the average evaporator temperature will be significantly lower than the dew point since the refrigerant temperature will increase (up to the dew point) as it travels through the evaporator. As a result, two identical unit coolers, one charged with R–404A and one with R–407A, will be tested at different evaporator-to-air temperature differences (''TD''), but with the same evaporator airflow. Measured capacity is directly correlated with the product of TD and airflow; therefore, the high-glide R–407A unit cooler would achieve a higher rated capacity than the R–404A unit cooler. However, this capacity difference is an artifact of the test procedure, which requires that unit coolers and dedicated condensing units be tested alone. In the field, a unit cooler will be paired with a dedicated condensing unit, and R–407A unit coolers will not actually provide additional capacity when compared to their R–404A counterparts. For these reasons, the current test procedure is not refrigerant-neutral.

In the April 2022 NOPR, DOE discussed how the current test procedure is not refrigerant-neutral in terms of high-glide and zero-glide refrigerants because it uses dewpoint throughout the test procedure. 87 FR 23920, 23970. DOE also discussed the modified midpoint approach, which is more refrigerant-neutral. The modified midpoint approach attempts to standardize the average evaporator temperature, rather than standardizing the evaporator dew point. In doing so, identical unit coolers using zero- and high-glide refrigerants would exhibit identical TDs, thus alleviating concerns of overstated capacity.

While a modified midpoint approach may be more refrigerant-neutral, DOE notes that the AHRI 1250–2020, which DOE is referencing in appendix C1, uses a dewpoint rather than a modified midpoint approach. DOE does not have enough information at this time to justify the use of a modified midpoint approach. As a result, in the April 2022 NOPR, DOE proposed to continue to use dew point throughout the test procedure. *Id.*

In response to the April 2022 NOPR, HTPG commented that it disagrees with the midpoint approach and suggested maintaining the dew point approach. (HTPG, No. 32 at p. 7) DOE is adopting the proposal from the April 2022 NOPR and continuing to specify refrigerant conditions using dew point.

10. Refrigerant Temperature and Pressure Instrumentation Locations

As discussed in the April 2022 NOPR, the specified superheat in AHRI 1250–2020 differs from the current DOE test procedure for dedicated condensing unit efficiency calculations, but there is no effective difference in where the required pressure and temperature measurements should be taken on the equipment under test. 87 FR 23920, 23971. However, Figure C2 in AHRI 1250–2020 suggests that the use of a suction line mass flow meter for these measurements is not allowed. In the April 2022 NOPR, DOE proposed to clarify that a second mass flow meter in the suction line would be allowed with the adoption of AHRI 1250–2020. *Id.* Specifically, DOE clarified that the second mass flow measurement for the DX dual instrumentation method may be in the suction line upstream of the inlet to the condensing unit, as shown in Figure C1 of AHRI 1250–2009. AHRI, HTPG, Lennox, Hussmann, and RSG agreed with the proposal. (AHRI, No. 30 at p. 10; HTPG, No. 32 at p. 7; Lennox,

[55] AHRI 1250–2020 includes an adaptive defrost challenge test in appendix E (Appendix E) and a hot gas defrost challenge test in appendix F (Appendix F) that require a frosted-coil. The tests in both of these appendices are labeled as ''informative,'' and were designed to evaluate adaptive defrost or hot gas defrost functionality, respectively, rather than to quantify defrost energy use.

No. 35 at p. 7; Hussmann, No. 38 at p. 10; RSG, No. 41 at p. 2)

AHRI also commented that DOE should only reference AHRI 1250–2020, not both AHRI 1250–2020 and AHRI 1250–2009, for the location of flow meters. (AHRI, No. 30 at p. 10) DOE is clarifying that only AHRI 1250–2020 will be referenced in appendix C1, and that AHRI 1250–2009 is mentioned in this discussion only to explain the intention of the proposal. Therefore, DOE is adopting the test procedure as proposed in the April 2022 NOPR.

11. Updates to Default Values for Unit Cooler Parameters

As discussed in section III.B.3.c, Sections 7.9.1 and 7.9.2 of AHRI 1250–2020 add new equations to calculate on-cycle evaporator fan power when testing a dedicated condensing unit alone. These equations are different from those in the current test procedure in appendix C, which calculates on-cycle evaporator fan power based on the cooling capacity of the condensing unit. The equations in AHRI 1250–2020 are based on more test data and analysis than those currently in appendix C. In the April 2022 NOPR, DOE proposed to adopt the calculations for on-cycle evaporator fan power for dedicated condensing units tested alone as prescribed in AHRI 1250–2020. 87 FR 23920, 23971–23972.

AHRI, HTPG, Lennox, and RSG agreed with the proposed on-cycle evaporator fan power calculations. (AHRI, No. 30 at p. 10; HTPG, No. 32 at p. 7; Lennox, No. 35 at p. 7; RSG, No. 41 at p. 2) DOE is adopting the test procedure as proposed in the April 2020 NOPR.

12. Calculations and Rounding

In the April 2022 NOPR, DOE proposed new rounding requirements for AWEF and capacity to ensure greater test procedure consistency. 87 FR 23920, 23972. DOE clarifies here that the rounding requirements proposed in the April 2022 NOPR should have been for AWEF2 and not AWEF, which means that any rounding requirements would become effective when appendix C1 becomes effective.

DOE recognizes that the way values are rounded can affect the resulting capacity and AWEF2 values. To ensure consistency in calculating capacity and AWEF2 values, DOE proposed in the April 2022 NOPR that raw measured data be used in all capacity and AWEF2 calculations. *Id.* DOE's current standards specify a minimum AWEF2 value in Btu/(W-h) to the hundredths place. DOE proposed rounding AWEF2 values to the nearest 0.05 Btu/(W-h). *Id.* To round capacity, DOE proposed to round to the nearest multiple as specified in Table III.7. The proposed capacity bins and multiples are consistent with other HVAC test procedures.[56]

TABLE III.7—REFRIGERATION CAPACITY RATING RANGES AND THEIR ROUNDING MULTIPLES

Refrigeration capacity ratings, 1,000 Btu/h	Multiples, Btu/h
<20	100
≥20 and <38	200
≥38 and <65	500
≥65	1,000

AHRI, HTPG, KeepRite, Lennox, and National Refrigeration recommended that AWEF2 values be rounded to the nearest 0.01 Btu/(W-h), as current standards are taken to that precision. (AHRI, No. 30 at pp. 10–11; HTPG, No. 32 at p. 8; KeepRite, No. 36 at p. 4; Lennox, No. 35 at p. 7; National Refrigeration, No. 39 at p. 2) DOE agrees that rounding to the nearest 0.05 Btu/(W-h) as proposed may cause confusion. Therefore, DOE is requiring that AWEF2 values be rounded to the nearest 0.01 Btu/(W-h).

AHRI, AHRI-Wine, and RSG agreed with the proposed capacity ranges and respective rounding requirements. (AHRI, No. 30 at p. 10; AHRI-Wine, No. 30 at p. 4; RSG, No. 41 at p. 2) DOE is adopting the capacity rounding requirements as proposed in the April 2022 NOPR and summarized in Table III.7.

H. Alternative Efficiency Determination Methods for Refrigeration Systems

Pursuant to the requirements of 10 CFR 429.70, DOE may permit use of an AEDM in lieu of testing equipment for which testing burden may be considerable and for which that equipment's energy efficiency performance may be well predicted by such alternative methods. Although specific requirements vary by product or equipment, use of an AEDM entails development of a mathematical model that estimates energy efficiency or energy consumption characteristics of the basic model, as would be measured by the applicable DOE test procedure. The AEDM must be based on engineering or statistical analysis, computer simulation or modeling, or other analytic evaluation of performance data. A manufacturer must perform validation of an AEDM by demonstrating that the performance, as predicted by the AEDM, agrees with the performance as measured by actual testing in accordance with the applicable DOE test procedure. The validation procedure and requirements, including the statistical tolerance, number of basic models, and number of units tested vary by product or equipment.

Once developed, an AEDM may be used to rate and certify the performance of untested basic models in lieu of physical testing. However, use of an AEDM for any basic model is always at the option of the manufacturer. One potential advantage of AEDM use is that it may free a manufacturer from the burden of physical testing. One potential risk is that the AEDM may not perfectly predict performance, and the manufacturer could be found responsible for having an invalid rating for the equipment in question or for having distributed a noncompliant basic model. The manufacturer, by using an AEDM, bears the responsibility and risk of the validity of the ratings. For walk-ins, DOE currently permits the use of AEDMs for refrigeration systems only. 10 CFR 429.70(f).

In a final rule published on May 13, 2014, DOE established that AEDMs can be used by walk-in refrigeration manufacturers, once certain qualifications are met, to certify compliance and report ratings. 79 FR 27388, 27389. That rule established a uniform, systematic, and fair approach to the use of these types of modeling techniques that has enabled DOE to ensure that products in the marketplace are correctly rated—irrespective of whether they are subject to actual physical testing or are rated using modeling—without unnecessarily burdening regulated entities. *Id.* A minimum of two distinct models must be tested to validate an AEDM for each validation class.

DOE is adopting new test procedures for single-packaged dedicated systems, high-temperature refrigeration systems, and CO_2 unit coolers. Application design temperature of the refrigerated environment has a significant impact on equipment performance; therefore, in the April 2022 NOPR, DOE proposed to incorporate new AEDM validation classes for all high-temperature refrigeration systems (single-packaged dedicated systems and matched-pair systems). 87 FR 23920, 23973. Additionally, single-packaged units are expected to perform differently than dedicated condensing units under the test procedure which incorporates thermal losses. Therefore, in the April

[56] A version of Table III.14 can be found in AHRI Standard 390 I–P (2021), ''Performance Rating of Single-Package Vertical Air-conditioners and Heat Pumps.''

2022 NOPR, DOE proposed to create new validation classes for low-temperature, medium-temperature, and high-temperature single-packaged dedicated systems. *Id.* To ensure that walk-in validation classes are consistent with DOE's current walk-in terminology, DOE proposed to rename the ''unit cooler connected to a multiplex condensing unit'' validation classes to ''unit cooler'' at either medium- or low-temperature; however, the AEDM requirements for these classes remain the same. *Id.* Finally, DOE proposed to remove the medium-/low-temperature indoor/outdoor condensing unit validation classes, as these are redundant with the medium-/low-temperature indoor/outdoor dedicated condensing unit validation classes. *Id.*

Implementation of appendix C1 will require that all AEDMs for single-packaged dedicated systems are amended to be consistent with the test procedure proposed in appendix C1.

The AEDM validation classes for walk-in refrigeration equipment DOE proposed in the April 2022 NOPR are as follows:

- Dedicated Condensing Unit, Medium-Temperature, Indoor System
- Dedicated Condensing Unit, Medium-Temperature, Outdoor System
- Dedicated Condensing Unit, Low-Temperature, Indoor System
- Dedicated Condensing Unit, Low-Temperature, Outdoor System
- Single-packaged Dedicated System, High-Temperature, Indoor System
- Single-packaged Dedicated System, High-Temperature, Outdoor System
- Single-packaged Dedicated System, Medium-Temperature, Indoor System
- Single-packaged Dedicated System, Medium-Temperature, Outdoor System
- Single-packaged Dedicated System, Low-Temperature, Indoor System
- Single-packaged Dedicated System, Low-Temperature, Outdoor System
- Matched Pair, High-Temperature, Indoor Condensing Unit
- Matched Pair, High-Temperature, Outdoor Condensing Unit
- Matched Pair, Medium-Temperature, Indoor Condensing Unit
- Matched Pair, Medium-Temperature, Outdoor Condensing Unit
- Matched Pair, Low-Temperature, Indoor Condensing Unit
- Matched Pair, Low-Temperature, Outdoor Condensing Unit
- Unit Cooler, High-Temperature
- Unit Cooler, Medium-Temperature
- Unit Cooler, Low-Temperature

Additionally, DOE proposed in the April 2022 NOPR to maintain the provision that outdoor models within a given validation class may be used to determine represented values for the corresponding indoor class, and additional validation testing is not required. 87 FR 23920, 23973. For example, two medium-temperature outdoor dedicated condensing units may be used to validate an AEDM for both the ''Dedicated Condensing Unit, Medium-Temperature, Outdoor System'' class and the ''Dedicated Condensing Units, Medium-Temperature, Indoor System'' class. If indoor models that fall within a given validation class are tested and used to validate an indoor AEDM, however, that test data may not be used to validate the equivalent outdoor validation class.

In the April 2022 NOPR, DOE proposed no additional modifications to the walk-in specific AEDM provisions within 10 CFR 429.70(f). *Id.* In the April 2022 NOPR, DOE requested comment on its proposal to modify and extend its AEDM validation classes. *Id.*

AHRI, Lennox, National Refrigeration, and RSG agreed with the proposed AEDM validation classes. (AHRI, No. 30 at p. 11; Lennox, No. 35 at p. 8; National Refrigeration, No. 39 at p. 2; RSG, No. 41 at p. 3) HTPG agreed with DOE's proposals to (1) add single-packaged dedicated system validation classes, (2) to rename ''unit cooler connected to a multiplex condensing unit'' validation classes to ''unit cooler,'' and (3) to remove medium-/low-temperature indoor/outdoor condensing unit validation classes to eliminate redundancy. (HTPG, No. 32 at p. 8) AHRI-Wine agreed with the proposed validation classes. (AHRI-Wine, No. 30 at p. 4)

AHRI-Wine requested clarification on whether there are AEDM validation classes for high-temperature dedicated condensing units. *Id.* DOE is clarifying that there are no AEDM validation classes for high-temperature dedicated condensing units. As discussed in section III.F.7, DOE has found that the wine cellar industry seems to use general-purpose dedicated condensing units, which must meet the medium-temperature dedicated condensing unit energy conservation standard and should be certified as such. These general-purpose dedicated condensing units would fall into the ''Dedicated Condensing Unit, Medium-Temperature Outdoor System'' or ''Dedicated Condensing Unit, Medium-Temperature Indoor System'' AEDM validation class.

DOE is adopting the AEDM validation classes for refrigeration systems as proposed in the April 2022 NOPR.

I. Sampling Plan for Enforcement Testing

As discussed in the April 2022 NOPR, DOE uses appendix B to subpart C of 10 CFR part 429 to assess compliance for walk-in refrigeration systems, which is specifically intended for use for covered equipment and certain low-volume covered products. 87 FR 23920, 23973. DOE does not specifically reference which appendix in subpart C of 10 CFR part 429 it uses for determination of compliance for walk-in doors or walk-in panels. In an Enforcement NOPR published on August 31, 2020 (''August 2020 Enforcement NOPR''), DOE proposed to add walk-in cooler and freezer doors and walk-in panels to the list of equipment subject to the low-volume enforcement sampling procedures in appendix B to subpart C of 10 CFR part 429. 85 FR 53691, 53696. DOE noted that this equipment is not currently included within DOE's list because when the current regulations were drafted, walk-in doors and walk-in panels did not have applicable performance standards, only design standards, and therefore sampling provisions were not necessary at the time. In the April 2022 NOPR, DOE proposed to include walk-in doors and walk-in panels in the list of covered equipment and certain low-volume products at 10 CFR 429.110(e)(2). 87 FR 23920, 23973.

AHRI, Hussmann, Bally, and RSG all requested clarification on the definition of ''low-volume.'' (AHRI, No. 30 at p. 11; Hussmann, No. 34 at p. 4; Bally, No. 40 at p. 5; RSG, No. 41 at p. 3)

DOE does not define a numerical threshold for ''low-volume'' or ''high-volume'' products and equipment, and for some products and equipment the Department may consider volume on a case-by-case basis. DOE created the ''low-volume'' designation to separate built-to-order equipment from pre-manufactured, off the shelf products, providing built-to-order equipment a longer time period to ship a basic model. 76 FR 12421, 12435. In the context of enforcement, 10 CFR 429.110(e)(1) states that DOE will use a sample size of not more than 21 units and follow the sampling plans in appendix A to subpart C of 10 CFR part 429 to determine compliance with the applicable DOE standards for high-volume equipment, while DOE will use a sample size of not more than 4 units and follow the sampling plans in appendix B to subpart C of 10 CFR part 429 to determine compliance with the applicable DOE standards for low-volume equipment. As specified in 10 CFR 429.110(b), units selected for

enforcement evaluation are provided by the manufacturer. DOE notes that walk-in refrigeration systems are currently included in the list of covered equipment and certain low-volume products at 10 CFR 429.110(e)(2). Including walk-in door and panels ensures all walk-in components are similarly evaluated. DOE is including walk-in doors and panels in the list of covered equipment and certain low-volume covered products at 10 CFR 429.110(e)(2) and thus will use the sampling plan in appendix B to subpart C of 10 CFR part 429.

DOE is adopting the enforcement sampling plan as proposed in the April 2022 NOPR.

Bally also asked for clarification regarding how the low-volume sampling procedures work when coupled with new section 5.4.3 of appendix B to subpart R of 10 CFR part 431. (Bally, No. 40 at p. 5) Bally asked whether appendix B to subpart C of 10 CFR part 429 is a restatement of 10 CFR 429.53(a)(3)(ii)(B)(*2*). *Id.* DOE notes that the sampling plan provisions in appendix B to subpart C of 10 CFR part 429 are strictly for the Department's evaluation of compliance when conducting enforcement testing. The provisions at 10 CFR 429.53(a)(3)(ii)(B)(*2*) are the requirements that manufacturers are required to follow when determining the represented value certified to DOE. DOE did not propose to make changes to the certification language in the April 2022 NOPR. The provisions in the new section 5.4.3 of appendix B to subpart R of 10 CFR part 431 are intended to allow manufacturers to use K-factor test results from a set of test samples to determine R-value of envelope components with varying foam thicknesses as long as the foam throughout the panel is of the same final chemical form and the test was completed at the same test conditions as other envelope components. In other words, if a manufacturer offers 4-inch and 5-inch cooler panels, the manufacturer may use the K-factor results of a single series of tests to determine the R-value for both the 4-inch and 5-inch cooler panels.

J. Organizational Changes

In the April 2020 NOPR, DOE proposed a number of non-substantive organizational changes. 87 FR 23920, 23977. As discussed previously, DOE proposed to reorganize appendices A and B so that they are easier for stakeholders to follow as a step-by-step test procedure. Additionally, DOE proposed to remove the specifications at 10 CFR 429.53(a)(2)(i) regarding specific test procedure provisions and instead include these provisions in the uniform test method section at 10 CFR 431.304. The intent of this proposed change was to move provisions of the applicable test procedure to the appropriate place in subpart R, rather than keeping them under the provisions for determining represented values for certification. However, DOE proposed to keep the additional detail regarding the represented values of various configurations of refrigeration systems (*e.g.,* outdoor and indoor dedicated condensing units, matched refrigeration systems, etc.) at 10 CFR 429.53(a)(2)(i).

DOE received no comment on these proposals regarding organizational changes and therefore is adopting them as proposed in the April 2022 NOPR.

K. Test Procedure Costs and Impact

EPCA requires that test procedures proposed by DOE be reasonably designed to produce test results which reflect energy efficiency and energy use of a type of industrial equipment during a representative average use cycle and not be unduly burdensome to conduct. (42 U.S.C. 6314(a)(2)) The following sections discuss DOE's evaluation of the estimated costs and savings associated with the amendments in this final rule.

1. Doors

In this document, DOE is adopting the following amendments to the test procedures in appendix A for walk-in cooler and freezer doors:

- Referencing NFRC 102–2020 for the determination of U-factor;
- Including AEDM provisions for manufacturers to alternately determine the total energy consumption of display and non-display doors;
- Providing additional detail for determining the area used to convert U-factor into conduction load, A_s, to differentiate it from the area used to determine compliance with the standards, A_{dd} or A_{nd};
- Specifying a PTO value of 97 percent for door motors.

The first and third amendments, referencing NFRC 102–2020 and additional detail on the area used to convert U-factor into a conduction load, improve the consistency, reproducibility, and representativeness of test procedure results. The second amendment, including AEDM provisions, intends to provide manufacturers with the flexibility to use an alternative method to testing that provides good agreement for their doors. The fourth amendment, including a PTO value of 97 percent, intends to provide a more representative and consistent means for comparison of walk-in door performance for doors with motors.

DOE has determined that these proposed amendments would improve the representativeness, accuracy, and reproducibility of the test results, and would not be unduly burdensome for door manufacturers to conduct. DOE has also determined that these proposed amendments would not increase testing costs per basic model relative to the current DOE test procedure in appendix A, which DOE estimates to be $10,000 for third-party labs to determine energy consumption of a walk-in door, including physical U-factor testing per NFRC 102–2020.[57] Finally, DOE has determined that manufacturers would not be required to redesign any of the covered equipment or change how the equipment is manufactured solely as a result of these amendments.

The cost impact to manufacturers as a result of the reference to NFRC 102–2020 and inclusion of AEDM provisions is dependent on the agreement between tested and simulated values as specified in section 4.7.1 of NFRC 100–2010[58] and as referenced in the current test procedure. For manufacturers of doors that have been able to achieve the specified agreement between U-factors simulated using the method in NFRC 100–2010 and U-factors tested using NFRC 102–2020, after physically conducting testing to validate the AEDM, manufacturers would be able to continue using the simulation method in NFRC 100–2010 provided it meets the basic requirements proposed for an AEDM in 10 CFR 429.53 and 429.70(f).

For manufacturers of doors that have not been able to achieve the specified agreement between U-factors simulated using the method in NFRC 100–2010 and U-factors tested using NFRC 102–2020, DOE estimates that the test burden would decrease. Under the current requirements, manufacturers may be required to determine U-factor through physical testing of every basic model. With the new test procedure,

[57] DOE estimates the cost of one test to determine energy consumption of a walk-in door, including one physical U-factor test per NFRC 102–2020, to be $5,000. Per the sampling requirements specified at 10 CFR 429.53(a)(3)(ii) and 429.11(b), manufacturers are required to test at least two units to determine the rating for a basic model, except where only one unit of the basic model is produced.

[58] Section 4.7.1 of NFRC 100–2010 requires that the accepted difference between the tested U-factor and the simulated U-factor be (a) 0.03 Btu/(h-ft^2-°F) for simulated U-factors that are 0.3 Btu/(h-ft^2-°F) or less, or (b) 10 percent of the simulated U-factor for simulated U-factors greater than 0.3 Btu/(h-ft^2-°F). This agreement must match for the baseline product in a product line. Per NFRC 100–2010, the baseline product is the individual product selected for validation; it is not synonymous with ''basic model'' as defined in 10 CFR 431.302.

manufacturers who would have otherwise been required to physically test every walk-in door basic model could develop an AEDM for rating their basic models of walk-in doors consistent with the proposed provisions in 10 CFR 429.53 and 429.70(f). DOE estimates the per-manufacturer cost to develop and validate an AEDM for a single validation class of walk-in doors to be $11,100. DOE estimates an additional cost to determine energy consumption of a walk-in door using an AEDM to be $46 per basic model.[59]

DOE expects that the additional detail provided for determining the area used to convert U-factor into conduction load, A_s, would either result in reduced energy consumption or have no impact. To the extent that this change to the test procedure would amend the energy consumption attributable to a door, such changes would either not change the calculated energy consumption or result in a lower energy consumption value as compared to how manufacturers may currently be rating, given that the current test procedure does not provide specific details on measurement of A_{dd} and A_{nd}. As such, DOE expects that manufacturers would be able to rely on data generated under the current test procedure. While manufacturers must submit a report annually to certify a basic model's represented values, basic models do not need to be retested annually. The initial test results used to generate a certified rating for a basic model remain valid if the basic model has not been modified from the tested design in a way that makes it less efficient or more consumptive, which would require a change to the certified rating. If a manufacturer has modified a basic model in a way that makes it more efficient or less consumptive, new testing is only required if the manufacturer wishes to make claims using the new, more efficient rating.[60]

For doors without motors, DOE has concluded that the proposed test procedure would not change energy consumption ratings, which would not require rerating solely as result of DOE's adoption of this amendment to the test procedure. Therefore, DOE has determined all proposed amendments either decrease or result in no additional testing costs to manufacturers of walk-in doors.

To the extent that changes to the test procedure would amend the energy consumption attributable to a door motor, such changes would either not change the calculated energy consumption or result in a lower energy consumption value as compared to the currently granted waivers addressing door motors. As such, DOE expects that manufacturers would be able to rely on data generated under the current test procedure and current waivers. While manufacturers must submit a report annually to certify a basic model's represented values, basic models do not need to be retested annually. The initial test results used to generate a certified rating for a basic model remain valid if the basic model has not been modified from the tested design in a way that makes it less efficient or more consumptive, which would require a change to the certified rating. If a manufacturer has modified a basic model in a way that makes it more efficient or less consumptive, new testing is only required if the manufacturer wishes to make claims using the new, more efficient rating.

In the April 2022 NOPR, DOE requested comment on its understanding of the impact of the test procedure proposals for appendix A. 87 FR 23920, 23979.

AHRI stated that it is unable to determine or comment on impact until it understands the AEDM for doors. (AHRI, No. 30 at p. 11) DOE has provided additional detail regarding AEDMs in section III.C.1 of this document and estimates that the test burden would decrease for the industry as a whole.

Bally commented that the $11,000 estimated cost for U-factor testing doesn't consider the cost of materials. (Bally, No. 40 at p. 5) DOE has determined that the DOE test procedure for walk-in doors is non-destructive and that units can therefore be recovered after testing. For this reason, DOE does not include the cost of the unit under test.

While stakeholders did not specifically recommend including freight costs in the test cost estimates for walk-in doors, they did recommend including freight costs in the test cost estimates for walk-in refrigeration systems (discussed in section III.K.3 of this document). DOE acknowledges that freight costs are an additional expense associated with third-party testing. Therefore, to be consistent with the estimates provided for refrigeration system testing, DOE has estimated the cost of round-trip freight. DOE estimates that the shipping cost for a walk-in box from a manufacturing facility to a test lab can range from $800 to $2,500 depending on the relative locations of the two facilities, the weight and size of the unit being shipped, and the discounts associated with shipping multiple units at one time. Thus, DOE estimates the round-trip freight costs as ranging from $1,600 to $5,000.

2. Panels

In this final rule, DOE is amending the existing test procedure in appendix B for measuring the R-value of insulation of panels by:

- Incorporating by reference the updated version of the applicable industry test method, ASTM C518–17;
- Including provisions specific to measurement of test specimen and total insulation thickness; and
- Providing a method for determining the parallelism and flatness of the test specimen.

The first amendment incorporates by reference the most up-to-date version of the industry standards currently referenced in the DOE test procedure. The second and third amendments include additional instructions intended to improve consistency and reproducibility of test procedure results.

DOE has determined that these proposed amendments would improve the accuracy and reproducibility of the test results and would not be unduly burdensome for manufacturers to conduct, nor would they be expected to increase the testing burden.

DOE expects that the proposed test procedure in appendix B for measuring the R-value of insulation would not increase testing costs per basic model relative to the current DOE test procedure, which DOE estimates to be $1,200 for third-party laboratory testing.[61] Additionally, DOE has determined that the test procedure in appendix B would not result in manufacturers having to redesign any of the covered equipment or change how the equipment is manufactured.

In the April 2022 NOPR, DOE requested comment on its understanding of the impact of the test procedure proposals for appendix B. 87 FR 23920, 23975.

AHRI agreed with DOE's understanding of the impact of the test

[59] DOE estimated initial costs to validate an AEDM assuming 24 hours of general time to develop and validate an AEDM based on existing simulation tools. DOE estimated the cost of an engineering calibration technician fully burdened wage of $46 per hour plus the cost of third-party physical testing of two basic models per proposed validation class. DOE estimated the additional per basic model cost to determine efficiency using an AEDM assuming 1 hour per basic model at the cost of an engineering calibration technician wage of $46 per hour.

[60] *See* guidance issued by DOE at *www1.eere.energy.gov/buildings/appliance_standards/pdfs/cert_faq_2012-04-17.pdf.*

[61] DOE estimates the cost of one test to determine R-value to be $600. Per the sampling requirements specified at 10 CFR 429.53(a)(3)(ii) and 429.11(b), manufacturers are required to test at least two units to determine the rating for a basic model, except where only one unit of the basic model is produced.

procedure. (AHRI, No. 30 at p. 12) Bally commented that the increased measurement and complex calculations involving least squares regression for parallelism and flatness are overly burdensome and that it anticipates difficulty finding laboratories capable of doing the calculations. (Bally, No. 40 at p. 6) In response to Bally's comment, DOE reiterates that the measurement and calculations for parallelism and flatness are necessary to improve the accuracy and reproducibility of the test results. Additionally, what Bally has identified as increased measurement are generally measurements that are already being taken by third party laboratories, but which have not been specified in the DOE test procedure. With respect to the complexity of the calculations, DOE notes that third party laboratories typically use templates to run calculations which would be repeated for multiple tests conducted and that, while a laboratory may need to initially update the template they use, the calculations would not be overly complex and burdensome on an ongoing basis for testing. DOE was also able to find laboratories capable of doing the additional measurements and calculations. Thus, DOE has determined that the procedure is not overly burdensome.

Because the test procedure for walk-in panels is destructive and that units cannot be recovered after testing, DOE is including in its evaluation the cost of the unit under test. DOE estimates the cost of a walk-in panel to range from $90 to $300, depending on size and materials used, and when testing a minimum of two units of a basic model as required by 10 CFR 429.53(a)(1), a total cost of $180 to $600 per basic model.

DOE acknowledges that freight costs are an additional expense associated with third-party testing. Therefore, DOE has estimated the cost of freight to the test facility. DOE estimates that the shipping cost for one walk-in box from a manufacturing facility to a test laboratory can range from $800 to $2,500 depending on the relative locations of the two facilities, the weight and size of the unit being shipped, and the discounts associated with shipping multiple units at one time.

3. Refrigeration Systems

DOE is adopting certain changes to appendix C that DOE has determined will improve the accuracy and reproducibility of the test results and would not be unduly burdensome for manufacturers to conduct. DOE has further determined that these changes will not impact testing cost. Additionally, the amended, appendix C measures AWEF per AHRI 1250–2009, and therefore does not contain any changes that will require retesting or rerating. The current testing costs which DOE have determined will be equivalent to the amended appendix C testing costs are summarized in this section. DOE's assessment of the impacts of the amendments of appendix C to include new test procedures for high-temperature refrigeration systems and CO_2 unit coolers are discussed in more detail in this section.

In response to the April 2022 NOPR, HTPG agreed that proposals to appendix C will not be unduly burdensome or impact cost. (HTPG, No. 32 at p. 8)

DOE is also adopting certain changes in the new appendix C1 that will amend the existing test procedure for walk-in coolers and freezers by:

- Expanding the off-cycle refrigeration system power measurements;
- Adding methods of test for single-packaged dedicated systems; and
- Including a method for testing ducted systems.

DOE has determined that these amendments will improve the representativeness, accuracy, and reproducibility of the test results, and will not be unduly burdensome for manufacturers to conduct. DOE has also determined that these amendments will impact testing costs by equipment type. DOE does not anticipate that the remainder of the amendments adopted in this final rule would impact test costs or test burden. DOE estimates third-party costs for testing to the current DOE test procedure to be:

- $10,000 for outdoor low-temperature and medium-temperature dedicated condensing units tested alone;
- $6,500 for indoor low-temperature and medium-temperature dedicated condensing units tested alone;
- $6,500 for low-temperature unit coolers tested alone;
- $6,000 for medium-temperature unit coolers tested alone;
- $10,000 for single-packaged dedicated systems; and
- $10,000 for high-temperature matched pairs.

As discussed previously in section III.G.1 of this document, DOE is adopting off-cycle test provisions in AHRI 1250–2020 for walk-in cooler and freezer refrigeration systems. The current test procedure requires off-cycle power to be measured at a single ambient condition (*i.e.,* 90 °F). The new test procedure requires off-cycle to be measured at three different ambient conditions (*i.e.,* 95 °F, 59 °F, and 35 °F) for outdoor dedicated condensing units, outdoor matched pair systems, and outdoor dedicated systems. The matched-pair and single-packaged dedicated systems include high-temperature refrigeration systems. When the waivers for these high-temperature refrigeration systems were granted, only one off-cycle test was required; therefore, manufacturers with waivers would be required to conduct additional testing compared to the alternate test procedure currently required. DOE estimates that measuring off-cycle power at these additional ambient conditions may increase third-party lab test cost by $1,000 per unit to a total cost of $11,000 per unit for outdoor dedicated condensing units, outdoor matched-pair systems, and outdoor single-packaged dedicated systems.

Manufacturers are not required to perform laboratory testing on all basic models. In accordance with 10 CFR 429.53, WICF refrigeration system manufacturers may elect to use AEDMs. DOE estimates the per-manufacturer cost to develop and validate an AEDM for outdoor dedicated condensing units and outdoor matched-pair systems to be $24,600.[62] DOE estimates an additional cost of approximately $46 per basic model[63] for determining energy efficiency of a given basic model using the validated AEDM.

As discussed previously in section III.G.2, DOE is adopting the single-packaged dedicated system test procedure for walk-ins in AHRI 1250–2020. The procedure requires air enthalpy tests to be used as the primary test method. In the current test procedure, single-packaged dedicated systems use refrigerant enthalpy as the primary test method. DOE does not estimate a difference in physical testing costs between air and refrigerant enthalpy testing of single-packaged units. DOE estimates the per-unit third-party lab test cost to be $11,000 for outdoor single-packaged dedicated

[62] Outdoor single-packaged systems are also impacted by the proposed adoption of the AHRI 1250–2020 single-packaged test procedure for walk-in cooler and freezer refrigeration systems. The combined potential cost increase for outdoor single-packaged systems is presented in the next paragraph.

[63] DOE estimated initial costs to validate an AEDM assuming 40 hours of general time to develop an AEDM based on existing simulation tools and 16 hours to validate two basic models within that AEDM at the cost of an engineering calibration technician fully burdened wage of $46 per hour plus the cost of third-party physical testing of two units per validation class (as required in 10 CFR 429.70(c)(2)(iv)). DOE estimated the additional per basic model cost to determine efficiency using an AEDM assuming 1 hour per basic model at the cost of an engineering calibration technician wage of $46 per hour.

systems and $6,500 for indoor single-packaged dedicated systems. However, should a manufacturer choose to use an AEDM, it may incur additional costs regarding the development and validation of new AEDMs for single-packaged dedicated systems. DOE estimates the per-manufacturer cost to develop and validate an AEDM to be $24,600 for outdoor single-packaged units and $15,600 for indoor single-packaged units. DOE estimates an additional cost of approximately $46 per basic model [64] for determining energy efficiency using the validated AEDM.

As discussed in sections III.F.6 and III.G.6, DOE is adopting test procedures for CO_2 unit coolers and high-temperature refrigeration systems. DOE estimates that the average third-party lab per unit test cost would be $11,000 for a high-temperature matched-pair or single-packaged dedicated system, $6,000 for a high-temperature unit cooler tested alone, $6,500 for a low-temperature CO_2 unit cooler, and $6,000 for a medium-temperature CO_2 unit cooler. As discussed previously, DOE has granted waivers to certain manufacturers for both high-temperature refrigeration systems and CO_2 unit coolers. The test procedures being adopted are consistent with the alternate test procedures included in the granted waivers. For those manufacturers who have been granted a test procedure waiver for this equipment, DOE expects that there would be no additional test burden. However, DOE expects that there would be additional testing costs for any manufacturers of these products who have not submitted or been granted a test procedure waiver at the time this test procedure is finalized. Such companies may incur an additional per unit test cost of:

- $11,000 for a high-temperature matched-pair or single-packaged system;
- $6,000 for a high-temperature unit cooler tested alone;
- $6,500 for a low-temperature CO_2 unit cooler tested alone; and
- $6,000 for a medium-temperature CO_2 unit cooler tested alone.

In the April 2022 NOPR, DOE requested comment on its understanding of the impact of the test procedure proposals for refrigeration systems. 87 FR 23920, 23976.

AHRI commented that a third-party lab test of a low-temperature unit cooler would be two to three times more expensive than DOE's $6,500 estimate. (AHRI, No. 30 at p. 12) Lennox stated that, in general, DOE's amendments increase work content of the test and therefore increase test costs. (Lennox, No. 35 at p. 8) Lennox also stated that the costs of their third-party lab tests have been at least double DOE's estimates. *Id.* RSG commented that it considers DOE's estimates to be very low and stated that there are few outside labs capable of testing to the degree that DOE requires. (RSG, No. 41 at p. 3) AHRI-Wine stated that they believe the estimated testing burden is reasonable and consistent. (AHRI-Wine, No. 30 at p. 4) DOE notes that the estimated test costs were based on actual lab quotes, which DOE has determined are representative of the pricing available to the industry as a whole. Additionally, DOE is aware of third-party labs that have the capability to test to the current DOE test procedure.

HTPG disagreed with DOE's test cost estimates for AEDMs and stated that 40 hours of labor per refrigerant is more accurate and therefore test costs would be multiplied by the number of refrigerants. (HTPG, No. 32 at p. 8) HTPG also stated that more validation would be done by manufacturers than what was estimated to ensure an AEDM applies across a basic model family. *Id.*

DOE notes that the estimated AEDM cost is per AEDM and does not make assumptions about the number of AEDMs needed based on the refrigerants used by a given manufacturer. DOE used the minimum number of tests (two) needed to validate an AEDM. While manufacturers may choose to test more units to validate an AEDM, testing more than two is not required.

AHRI stated that small original equipment manufacturers (''OEMs'') represent a significant amount of the market and will be negatively impacted by added complexity and costs. (AHRI, No. 30 at p. 12) NAFEM encouraged DOE to consider the limitation of lab capacity and the financial impacts on small businesses. (NAFEM, No. 33 at p. 2) DOE specifically discusses the test procedure burden imposed on small businesses in section IV.B of this document.

AHRI stated that EPA and DOE regulations will impact small refrigeration OEMs in a relatively immediate time frame. (AHRI, No. 30 at p. 12) NAFEM also commented that DOE should evaluate how various EPA rulemakings may impact energy efficiency improvements in the WICF manufacturing process and available products. (NAFEM, No. 33 at p. 2) DOE acknowledges that while there are other regulations that impact walk-in equipment, DOE will take cumulative regulatory burden into account in the ongoing energy conservation standards rulemaking as part of its manufacturer impact analysis.

AHRI and Lennox commented that the test cost estimates should include freight cost, unit cost, and cost of a unit to run the test. (AHRI, No. 30 at p. 12; Lennox, No. 35 at p. 8) DOE acknowledges that freight costs are an additional expense associated with third-party testing. DOE has determined that the DOE test procedure is non-destructive and that units can therefore be recovered after testing. For this reason, DOE has estimated the cost of round-trip freight, but does not include the cost of the unit under test. Additionally, DOE notes that the test procedure does not specifically require use of the unit matched to the unit under test (*i.e.,* a dedicated condensing unit matched to a unit cooler under test, or a unit cooler matched to a dedicated condensing unit under test).

DOE estimates that the shipping cost for one walk-in unit from a manufacturing facility to a test laboratory can range from $250 to $1,000 depending on the relative locations of the two facilities, the weight and size of the unit being shipped, and the discounts associated with shipping multiple units at one time. Thus, DOE estimates the round-trip freight costs as ranging from $500 to $2,000.

DOE additionally notes that it has used third-party laboratory test costs for its estimate of test costs. DOE understands that most walk-in refrigeration system manufacturers have their own test chambers. In these cases, DOE expects that its estimate for test and freight costs is conservative.

L. Effective and Compliance Dates

The effective date for the adopted test procedure amendment will be 30 days after publication of this final rule in the **Federal Register**. EPCA prescribes that all representations of energy efficiency and energy use, including those made on marketing materials and product labels, must be made in accordance with an amended test procedure, beginning 180 days after publication of the final rule in the **Federal Register**. (42 U.S.C. 6314(d)(1)) EPCA provides an allowance for individual manufacturers to petition DOE for an extension of the 180-day period if the manufacturer may experience undue hardship in meeting

[64] DOE estimated initial costs to validate an AEDM assuming 40 hours of general time to develop an AEDM based on existing simulation tools and 16 hours to validate two basic models within that AEDM at the cost of an engineering calibration technician fully burdened wage of $46 per hour plus the cost of third-party physical testing of two units per validation class (as required in 10 CFR 429.70(c)(2)(iv)). DOE estimated the additional per basic model cost to determine efficiency using an AEDM assuming 1 hour per basic model at the cost of an engineering calibration technician wage of $46 per hour.

the deadline. (42 U.S.C. 6314(d)(2)) To receive such an extension, petitions must be filed with DOE no later than 60 days before the end of the 180-day period and must detail how the manufacturer will experience undue hardship. *Id.* To the extent the modified test procedure adopted in this final rule is required only for the evaluation and issuance of updated efficiency standards, compliance with the amended test procedure does not require use of such modified test procedure provisions until the compliance date of updated standards.

Upon the compliance date of test procedure provisions in this final rule, any waivers that had been previously issued and are in effect that pertain to issues addressed by such provisions are terminated. 10 CFR 431.404(h)(3). Recipients of any such waivers are required to test the products subject to the waiver according to the amended test procedure as of the compliance date of the amended test procedure. The amendments adopted in this document pertain to issues addressed by waivers granted to the manufacturers listed in Table III.8.

TABLE III.8—MANUFACTURERS GRANTED WAIVERS AND INTERIM WAIVERS

Manufacturer	Subject	Case No.	Relevant test procedure	Proposed test procedure compliance date
Jamison Door Company	PTO for Door Motors	2017–009	Appendix A	10/31/2023.
HH Technologies	PTO for Door Motors	2018–001	Appendix A	10/31/2023.
Senneca Holdings	PTO for Door Motors	2020–002	Appendix A	10/31/2023.
Hercules	PTO for Door Motors	2020–013	Appendix A	10/31/2023.
HTPG	CO_2 Unit Coolers	2020–009	Appendix C	10/31/2023.
Hussmann	CO_2 Unit Coolers	2020–010	Appendix C	10/31/2023.
KeepRite	CO_2 Unit Coolers	2020–014	Appendix C	10/31/2023.
RefPlus, Inc	CO_2 Unit Coolers	2021–006	Appendix C	10/31/2023.
RSG	Multi-Circuit Single-Package Dedicated Systems.	2022–004	Appendix C	10/31/2023.
LRC Coil	Wine Cellar Refrigeration Systems.	2020–024	Appendix C[65]	10/31/2023.
Store It Cold	Single-Packaged Dedicated Systems.	2018–002	Appendix C1	Compliance date of updated standards.
CellarPro	Wine Cellar Refrigeration Systems.	2019–009	Appendix C1	Compliance date of updated standards.
Air Innovations	Wine Cellar Refrigeration Systems.	2019–010	Appendix C1	Compliance date of updated standards.
Vinotheque	Wine Cellar Refrigeration Systems.	2019–011	Appendix C1	Compliance date of updated standards.
Vinotemp	Wine Cellar Refrigeration Systems.	2020–005	Appendix C1	Compliance date of updated standards.

IV. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866 and 13563

Executive Order (''E.O.'') 12866, ''Regulatory Planning and Review,'' as supplemented and reaffirmed by E.O. 13563, ''Improving Regulation and Regulatory Review,'' 76 FR 3821 (Jan. 21, 2011), requires agencies, to the extent permitted by law, to (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public. DOE emphasizes as well that E.O. 13563 requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. In its guidance, the Office of Information and Regulatory Affairs (''OIRA'') in the Office of Management and Budget (''OMB'') has emphasized that such techniques may include identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in the preamble, this final regulatory action is consistent with these principles.

Section 6(a) of E.O. 12866 also requires agencies to submit ''significant regulatory actions'' to OIRA for review. OIRA has determined that this final regulatory action does not constitute a ''significant regulatory action'' under section 3(f) of E.O. 12866. Accordingly, this action was not submitted to OIRA for review under E.O. 12866.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of a final regulatory flexibility analysis (''FRFA'') for any final rule where the agency was first required by law to publish a proposed rule for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, ''Proper Consideration of Small Entities in Agency Rulemaking,'' 67 FR 53461 (August 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the DOE rulemaking process. 68 FR 7990. DOE

[65] DOE notes that Table III.15 in the April 2022 NOPR should have listed appendix C instead of appendix C1 as the relevant test procedure for the LRC Coil waiver. 87 FR 23920, 23977.

has made its procedures and policies available on the Office of the General Counsel's website: *www.energy.gov/gc/office-general-counsel.* DOE reviewed this final rule under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003.

The Energy Policy and Conservation Act, Public Law 94–163, as amended (''EPCA''),[66] authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part C[67] of EPCA, added by Public Law 95–619, Title IV, section 441(a), established the Energy Conservation Program for Certain Industrial Equipment, which sets forth a variety of provisions designed to improve energy efficiency. This equipment includes walk-in coolers and walk-in freezers (collectively ''WICFs'' or ''walk-ins''), the subject of this document. (42 U.S.C. 6311(1)(G)) DOE is publishing this final rule in satisfaction of the 7-year review requirement specified in EPCA. (42 U.S.C. 6314(b)(1))

DOE has conducted a focused inquiry into small business manufacturers of the equipment covered by this rulemaking. DOE used the Small Business Administration's small business size standards to determine whether any small entities would be subject to the requirements of the rule. The size standards are listed by North American Industry Classification System (''NAICS'') code as well as by industry description and are available at *www.sba.gov/document/support-table-size-standards.* Manufacturing WICFs is classified under NAICS 333415, ''Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing.'' The SBA sets a threshold of 1,250 employees or fewer for an entity to be considered as a small business for this category.[68] DOE used publicly available information to identify potential small businesses that manufacture WICFs covered in this rulemaking. DOE reviewed its Certification Compliance Database (''CCD'')[69] and the California Energy Commission's Modernized Appliance Efficiency Database System (''MAEDbS'')[70] to identify manufacturers. DOE also used subscription-based business information tools (*e.g.,* reports from Dun & Bradstreet[71]) to determine headcount and revenue of the small businesses.

Using these data sources, DOE identified 78 original equipment manufacturers (''OEMs'') of WICFs that could be potentially affected by this rulemaking. DOE screened out companies that do not meet the definition of a ''small business'' or are foreign-owned and operated. Of these 78 OEMs, 57 are small, domestic manufacturers. DOE notes that some manufacturers may produce more than one of the principal components of WICFs: doors, panels, and refrigeration systems. Forty-one of the small, domestic OEMs manufacture doors; 35 of the small, domestic OEMs manufacture panels; and 18 of the small, domestic OEMs manufacture refrigeration systems.

In response to the Initial Regulatory Flexibility Analysis published as part of the April 2022 NOPR, AHRI noted that while they are unsure of the exact number of small OEMs of WICF panels, doors, and refrigeration systems, they acknowledge that small OEMs represent a significant portion of the WICF market. AHRI asserted that small OEMs would be negatively impacted by what AHRI characterized as the added complexity and related costs. AHRI also noted that EPA and DOE regulatory actions that are not yet fully resolved have impact in a relatively immediate timeframe. (AHRI, No. 30 at p. 12)

DOE agrees with AHRI that small businesses account for the majority of WICF component OEMs operating in the United States. Regarding AHRI's concerns about complexity, DOE evaluates test procedures for each type of covered equipment, including WICFs, to determine whether amended test procedures would more accurately or fully comply with the requirements for the test procedures to not be unduly burdensome to conduct and be reasonably designed to produce test results that reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle. (42 U.S.C. 6314(a)(1)) DOE has determined that the amendments in this final rule would improve the accuracy, reproducibility, and representativeness of test procedure results, and will not be unduly burdensome for manufacturers to conduct. DOE has determined that the amendments outlined in this final rule will not require retesting or rerating of units.

Regarding the impact of EPA refrigerant regulation and other DOE rulemaking actions on small businesses, DOE would consider the impact on manufacturers of multiple product/equipment-specific regulatory actions pursuant to section 13(g) in appendix A to subpart C of part 430, in any subsequent energy conservation standards rulemaking analysis for WICFs.

RSG commented that it considers DOE's door, panel, and refrigeration system cost estimates to be very low. For refrigeration systems, RSG further stated that there are few outside labs capable of testing to the degree that DOE requires. (RSG, No. 41 at p. 3) DOE notes that the estimated test costs were based on actual laboratory quotes, which DOE has determined are representative of the pricing available to the industry as a whole. Additionally, DOE is aware of third-party laboratories that have the capability to test to the current DOE test procedure.

Doors

DOE has determined that retesting and recertification would not be required for walk-in cooler and freezer doors as a result of this rulemaking. DOE is adopting the following amendments to appendix A for walk-in cooler and freezer doors:

1. Referencing NFRC 102–2020 for the determination of U-factor;
2. Including AEDM provisions for manufacturers to alternately determine the total energy consumption of display and non-display doors;
3. Providing additional detail for determining the area used to convert U-factor into conduction load, A_s, to differentiate it from the area used to determine compliance with the standards, A_{dd} or A_{nd}; and
4. Specifying a PTO value of 97 percent for door motors.

DOE has determined that these amendments would not increase testing costs per basic model relative to the current DOE test procedure in appendix A.[72] Items 1 and 3, referencing NFRC

[66] All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 116–260 (Dec. 27, 2020), which reflect the last statutory amendments that impact Parts A and A–1 of EPCA.

[67] For editorial reasons, upon codification in the U.S. Code, Part C was redesignated Part A–1.

[68] The size standards are listed by NAICS code and industry description and are available at: *www.sba.gov/document/support-table-size-standards.* (Last accessed Oct. 11, 2022.)

[69] U.S. Department of Energy Compliance Certification Database, available at *www.regulations.doe.gov/certification-data/#q=Product_Group_s%3A*.* (Last accessed March 16, 2022.)

[70] California Energy Commission's Modernized Appliance Efficiency Database System, available at *cacertappliances.energy.ca.gov/Pages/Search/AdvancedSearch.aspx.* (Last accessed Nov. 1, 2021.)

[71] D&B Hoovers reports are available at *app.dnbhoovers.com.* (Last accessed Oct. 12, 2022.)

[72] DOE estimates the cost of one test to determine energy consumption of a walk-in door, including one physical U-factor test per NFRC 102–2020, to be $5,000. Per the sampling requirements specified

102–2020 and additional detail on the area used to convert U-factor into a conduction load, improves the consistency, reproducibility, and representativeness of test procedure results. Item 2, including AEDM provisions, intends to provide manufacturers with the flexibility to use an alternative method that gives the best agreement for their doors. Item 4, by including a PTO value of 97 percent, intends to provide a more representative and consistent means for comparison of walk-in door performance for doors with motors.

DOE expects certification costs for door manufacturers would either remain the same or be reduced, depending on whether manufacturers have been able to achieve the agreement between U-factors simulated using the method in NFRC 100 and U-factors tested using NFRC 102. Manufacturers of doors that have been able to achieve the specified agreement [73] between U-factors simulated using the method in NFRC 100 and U-factors tested using NFRC 102 would be able to continue using the simulation method in NFRC 100, provided that the simulation method also meets the basic requirements proposed for an AEDM in 10 CFR 429.53 and 429.70(f). For manufacturers of doors that have not been able to achieve the specified agreement between U-factors simulated using the method in NFRC 100 and U-factors tested using NFRC 102, DOE estimates that the test burden would decrease. With the new test procedure, manufacturers who would have otherwise been required to physically test every walk-in door basic model could develop an AEDM for rating their basic models of walk-in doors consistent with the proposed provisions in 10 CFR 429.53 and 429.70(f). DOE estimates the per-manufacturer cost to develop and validate an AEDM for a single validation class of walk-in doors to be $11,100, in addition to an estimated $1,600 to $5,000 in shipping costs.[74] DOE estimates an additional cost to determine energy consumption of a walk-in door using an AEDM to be $46 per basic model.[75]

DOE expects that the additional detail provided for determining the area used to convert U-factor into conduction load, A_s, would not result in changes that require manufacturers to re-certify equipment. Manufacturers would be able to rely on data generated under the current test procedure for equipment already certified.

For walk-in doors with motors, DOE has determined that the amendments described in section III of this final rule would either not change the measured energy consumption or would result in a lower measured energy consumption and therefore, would not require retesting or recertification as a result of DOE's adoption of the amendments to the test procedures. New testing is only required if the manufacturer wishes to make claims using the new, more efficient rating. Additionally, DOE has determined the amendments would not increase the cost of testing for doors with motors.

DOE concludes that manufacturers of WICF doors, including small manufacturers, will not incur retesting and recertification costs as a result of this final rule.

Panels

In this final rule, DOE is amending the existing test procedure in appendix B for measuring the R-value of insulation of panels by:

1. Incorporating by reference the updated version of the applicable industry test method, ASTM C518–17;
2. Including provisions specific to measurement of test specimen and total insulation thickness; and
3. Providing specifications for determining the parallelism and flatness of the test specimen.

The first item incorporates by reference the most up-to-date version of the industry standards currently referenced in the DOE test procedure. Items 2 and 3 include additional instructions intended to improve consistency and reproducibility of test procedure results.

DOE has concluded that the amendments will not change efficiency ratings for walk-in panels, and therefore will not require rerating as result of DOE's adoption of this amendment to the test procedure. Therefore, DOE has determined that these amendments will not add any additional testing costs to small business manufacturers of WICF panels.

Refrigeration Systems

In this final rule, DOE is adopting changes to appendix C that DOE has determined would improve the accuracy and reproducibility of the test results and would not be unduly burdensome for manufacturers to conduct. DOE has determined that these changes would not impact testing cost. Additionally, the amended appendix C, measuring AWEF per AHRI 1250–2009, does not contain any changes that would require retesting or rerating.

DOE is also adopting, through incorporations by reference, certain provisions of AHRI 1250–2020 in appendix C1 that will amend the existing test procedure for walk-in cooler and freezer refrigeration systems. DOE notes that the new appendix C1, which establishes new energy efficiency metric AWEF2, would increase testing costs for certain refrigeration system equipment types. This final rule does not require manufacturers to rate equipment using appendix C1. If DOE were to adopt a future energy conservation standard using the AWEF2 metric, that energy conversation standard will cause manufacturers to incur costs for retesting and recertification at the time when the amended standards take effect. The cost of retesting and recertification based on appendix C1 would be incorporated into the analysis of the energy conservation standard adopting the AWEF2 metric, should DOE choose to establish standard using that metric.

Although this test procedure final rule does not require the use of appendix C1 and manufacturers, including small manufacturers, will not incur retesting or recertification costs based on the AWEF2 metric at this time, DOE discusses the potential impacts of adopting certain changes in the new appendix C1 in this section.

at 10 CFR 429.53(a)(3)(ii) and 429.11(b), manufacturers are required to test at least two units to determine the rating for a basic model, except where only one unit of the basic model is produced.

[73] Section 4.7.1 of NFRC 100 requires that the accepted difference between the tested U-factor and the simulated U-factor be (a) 0.03 Btu/(h-ft2 °F) for simulated U-factors that are 0.3 Btu/(h-ft2 °F) or less, or (b) 10 percent of the simulated U-factor for simulated U-factors greater than 0.3 Btu/(h-ft2 °F). This agreement must match for the baseline product in a product line. Per NFRC 100, the baseline product is the individual product selected for validation; it is not synonymous with ''basic model'' as defined in 10 CFR 431.302.

[74] DOE estimates that the shipping cost for a walk-in box, typically made up of multiple panels and a door, from a manufacturing facility to a test lab can range from $800 to $2,500 depending on the relative locations of the two facilities, the weight and size of the unit being shipped, and the discounts associated with shipping multiple units at one time. This means that each estimated test cost would increase from $1,600 to $5,000 dollars when shipping a unit for test to and from a third-party lab.

[75] DOE estimated initial costs to validate an AEDM assuming 24 hours of general time to develop and validate an AEDM based on existing simulation tools. DOE estimated the cost of an engineering calibration technician fully burdened wage of $46 per hour plus the cost of third-party physical testing of two basic models per proposed validation class. DOE estimated the additional per basic model cost to determine efficiency using an AEDM assuming 1 hour per basic model at the cost of an engineering calibration technician wage of $46 per hour.

As discussed previously in this final rule, DOE is adopting off-cycle test provisions in AHRI 1250–2020 for walk-in refrigeration systems. The current test procedure requires off-cycle power to be measured at the 95 °F ambient condition. The new test procedure requires off-cycle to be measured at 95 °F, 59 °F, and 35 °F ambient conditions for outdoor dedicated condensing units, outdoor matched pair systems, and outdoor dedicated systems. The matched pair and single-packaged dedicated systems include high-temperature refrigeration systems. When the waivers for these high-temperature refrigeration systems were granted, only one off-cycle test was required; therefore, manufacturers with waivers would be required to conduct additional testing as compared to the alternate test procedure currently required. DOE estimates that measuring off-cycle power at these additional ambient conditions may increase third-party lab test cost by $1,000 per unit to a total cost of $11,000 per unit for outdoor dedicated condensing units, outdoor matched pair systems, and outdoor single-packaged dedicated systems. The physical testing cost would be $22,000 per basic model for outdoor dedicated condensing units, outdoor matched pair systems, and outdoor single-packaged dedicated systems, in addition to an estimated $1,000 to $4,000 in round trip shipping costs.[76]

However, manufacturers are not required to perform laboratory testing on all basic models. In accordance with 10 CFR 429.53, WICF refrigeration system manufacturers may elect to use AEDMs. DOE estimates the per-manufacturer cost to develop and validate an AEDM for outdoor dedicated condensing units and outdoor matched pair systems to be approximately $24,581,[77] in addition to an estimated $1,000 to $4,000 in round trip shipping costs.[78] DOE estimates an additional cost of approximately $46 per basic model[79] for determining energy efficiency of a given basic model using the validated AEDM.

DOE estimated the range of potential costs for the five small OEMs that manufacture outdoor dedicated condensing units, outdoor matched pair systems, and outdoor single-packaged dedicated systems. When developing cost estimates for the small OEMs, DOE considers the cost to update the existing AEDM simulation tool, the costs to validate the AEDM through physical testing (including shipping costs to and from the third-party laboratory), and the cost to rate basic models using the AEDM. DOE assumes a high-cost scenario where manufacturers would be required to develop AEDMs for six validation classes.

DOE estimates the impacts based on basic model counts and company revenue. Table IV.1 summarizes DOE's estimates for the five identified small businesses. On average, testing costs represent less than 1 percent of annual revenue for a typical small business.

As previously discussed, the procedure in appendix C1 would only require retesting or recertification when and if a future energy conservation standard takes effect.

TABLE IV.1—POTENTIAL SMALL BUSINESS RE-RATING COSTS (2022$) AS A RESULT OF OFF-CYCLE REFRIGERATION SYSTEM POWER REQUIREMENTS

Small domestic OEM	Re-rating estimate *($MM)*	Estimated annual revenue *($MM)*	Percent of annual revenue
Manufacturer 1	0.16	12.0	1.4
Manufacturer 2	0.16	110.3	0.1
Manufacturer 3	0.23	88.7	0.3
Manufacturer 4	0.16	116.2	0.1
Manufacturer 5	0.16	156.3	0.1

As also discussed in the final rule, DOE is adopting the single-packaged dedicated system test procedure for walk-ins in AHRI 1250–2020. The procedure requires air enthalpy tests to be used as the primary test method. In the current test procedure, single-packaged dedicated systems use refrigerant enthalpy as the primary test method. DOE does not estimate a difference in physical testing costs between air and refrigerant enthalpy testing of single-packaged dedicated systems. DOE estimates the per-unit third party lab test cost to be $11,000 for outdoor single-packaged units and $6,500 for indoor single-packaged units. The physical testing cost would be $22,000 per basic model for outdoor single-packaged dedicated systems and $13,000 per basic model for indoor package systems, in addition to an estimated $1,000 to $4,000 in round trip shipping costs for each class.[80]

However, should a manufacturer choose to use an AEDM, it may incur additional costs regarding the development and validation of new AEDMs for single-packaged dedicated systems. DOE estimates the per manufacturer cost to develop and validate an AEDM to be $24,580 for outdoor single-packaged units and $15,580 for indoor single-packaged units, in addition to an estimated $1,000 to $4,000 in round trip shipping costs.[81] DOE estimates an additional cost of

[76] The cost to test one unit is $11,000, plus an estimated $500 to $2,000 for shipping the refrigeration system to and from the third-party lab. Per the sampling requirements specified at 10 CFR 429.53(a)(2)(ii) and 429.11(b), manufacturers are required to test at least two units to determine the rating for a basic model, except where only one unit of the basic model is produced.

[77] Outdoor single-packaged systems are also impacted by the proposed adoption of AHRI 1250–2020 single-packaged test procedure for walk-in cooler and freezer refrigeration systems. The combined potential cost increase for outdoor single-packaged systems is presented in the next paragraph.

[78] Shipping costs associated with third-party physical testing of two units per validation class (as required in 10 CFR 429.70(c)(2)(iv)).

[79] DOE estimated initial costs to validate an AEDM assuming 40 hours of general time to develop an AEDM based on existing simulation tools and 16 hours to validate two basic models within that AEDM at the cost of an engineering calibration technician fully burdened wage of $46 per hour plus the cost of third-party physical testing of two units per validation class (as required in 10 CFR 429.70(c)(2)(iv)). DOE estimated the additional per basic model cost to determine efficiency using an AEDM assuming 1 hour per basic model at the cost of an engineering calibration technician wage of $46 per hour.

[80] Per the sampling requirements specified at 10 CFR 429.53(a)(2)(ii) and 429.11(b), manufacturers are required to test at least two units to determine the rating for a basic model, except where only one unit of the basic model is produced.

[81] Shipping costs associated with third-party physical testing of two units per validation class (as required in 10 CFR 429.70(c)(2)(iv)).

approximately $46 per basic model [82] for determining energy efficiency using the validated AEDM.

DOE estimated the range of potential costs for the two domestic, small OEMs that manufacture single-packaged dedicated systems. When developing cost estimates for the small OEMs, DOE considered the cost to update the existing AEDM simulation tool, the costs to validate the AEDM through physical testing (including shipping costs to and from the third-party laboratory), and the cost to rate basic models using the AEDM.

Both small businesses manufacture indoor and outdoor, low- and medium-temperature, single-packaged dedicated systems. One small business manufactures 28 basic models of single-packaged dedicated systems with an estimated annual revenue of $110 million. Therefore, DOE estimates the associated re-rating costs for this manufacturer to be approximately $91,250 when making use of AEDMs. The cost for this manufacturer represents less than 1 percent of annual revenue.

The second small business manufactures 38 basic models of single-packaged dedicated systems with an estimated annual revenue of $156 million. Therefore, DOE estimates the associated re-rating costs for this manufacturer to be approximately $91,700 when making use of AEDMs. The cost for this manufacturer represents less than 1 percent of annual revenue.

As previously discussed, the procedure in appendix C1 would only require retesting or recertification when and if a future energy conservation standard takes effect.

As also discussed in this final rule, DOE is adopting test procedures for CO_2 unit coolers and high-temperature refrigeration systems. DOE estimates that the average third-party lab per unit test cost would be $11,000 for a high-temperature matched pair or single-packaged dedicated system, $6,000 for a high-temperature unit cooler tested alone, $6,500 for a low-temperature CO_2 unit cooler, and $6,000 for a medium-temperature CO_2 unit cooler. As discussed previously, DOE has granted waivers to certain manufacturers for both high-temperature refrigeration systems and CO_2 unit coolers. The test procedures being adopted are consistent with the alternate test procedures included in the granted waivers. For those manufacturers who have been granted a test procedure waiver for this equipment, DOE expects that there would be no additional test burden. However, DOE expects that there would be additional testing costs for any manufacturers of these products who have not submitted or been granted a test procedure waiver at the time this test procedure is finalized. DOE estimates these manufacturers may incur rating expenses up to the following estimates, in addition to an estimated $5,000 to $2,000 in shipping costs for each class.[83]

- $22,000 per basic model for a high-temperature matched pair or single-packaged dedicated system; [84]
- $12,000 per basic model for a high-temperature unit cooler tested alone; [85]
- $13,000 per basic model for a low-temperature CO_2 unit cooler; [86] and
- $12,000 per basic model for a medium-temperature CO_2 unit cooler.[87]

However, manufacturers are not required to perform laboratory testing on all basic models. In accordance with 10 CFR 429.53, WICF refrigeration system manufacturers may elect to use AEDMs. DOE estimates the per-manufacturer cost to develop and validate an AEDM for high-temperature systems and low- and medium-temperature CO_2 unit coolers to be $24,580 per validation class, in addition to an estimated $1,000 to $4,000 in round trip shipping costs.[88] DOE estimates an additional cost of approximately $46 per basic model [89] for determining energy efficiency using the validated AEDM.

DOE estimated the potential costs to manufacturers of high-temperature units as a result of off-cycle requirements using an AEDM. Specifically, DOE estimated the range of potential costs for the five identified domestic, small OEMs that manufacture high-temperature units. When developing cost estimates for the small OEMs, DOE considers the cost to develop the AEDM simulation tool, the costs to validate the AEDM through physical testing (including shipping costs to and from the third-party laboratory), and the cost to rate basic models using the AEDM. DOE assumes a scenario where manufacturers would be required to develop AEDMs for three validation classes.

DOE estimated the impacts based on basic model counts and company revenue. Table IV.2 summarizes DOE's estimates for the five identified small businesses. On average, testing costs represent approximately 1.3 percent of annual revenue for a typical small business.

As previously discussed, the procedure in appendix C1 would only require retesting or recertification when and if a future energy conservation standard takes effect.

[81] Shipping costs associated with third-party physical testing of two units per validation class (as required in 10 CFR 429.70(c)(2)(iv)).

[82] DOE estimated initial costs to validate an AEDM assuming 40 hours of general time to develop an AEDM based on existing simulation tools and 16 hours to validate two basic models within that AEDM at the cost of an engineering calibration technician fully burdened wage of $46 per hour plus the cost of third-party physical testing of two units per validation class (as required in 10 CFR 429.70(c)(2)(iv)). DOE estimated the additional per basic model cost to determine efficiency using an AEDM assuming 1 hour per basic model at the cost of an engineering calibration technician wage of $46 per hour.

[83] The cost to ship one unit to and from the third-party lab is approximately $500 to $2,000. Per the sampling requirements specified at 10 CFR 429.53(a)(2)(ii) and 429.11(b), manufacturers are required to test at least two units to determine the rating for a basic model, except where only one unit of the basic model is produced.

[84] Per the sampling requirements specified at 10 CFR 429.53(a)(2)(ii) and 429.11(b), manufacturers

[88] Shipping costs associated with third-party physical testing of two units per validation class (as required in 10 CFR 429.70(c)(2)(iv)).

[89] DOE estimated initial costs to validate an AEDM assuming 40 hours of general time to develop an AEDM based on existing simulation tools and 16 hours to validate two basic models within that AEDM at the cost of an engineering calibration technician fully burdened wage of $46 per hour plus the cost of third-party physical testing of two units per validation class (as required in 10 CFR 429.70(c)(2)(iv)). DOE estimated the additional per basic model cost to determine efficiency using an AEDM assuming 1 hour per basic model at the cost of an engineering calibration technician wage of $46 per hour.

TABLE IV.2—POTENTIAL SMALL BUSINESS RE-RATING COSTS (2022$) FOR HIGH-TEMPERATURE REFRIGERATION SYSTEMS

Small domestic OEM	Re-rating estimate *($MM)*	Estimated annual revenue *($MM)*	Percent of annual revenue
Manufacturer A	0.089	3.9	2.3
Manufacturer B	0.088	3.6	2.5
Manufacturer C	0.089	11.5	0.8
Manufacturer D	0.091	10.8	0.8
Manufacturer E	0.089	208.0	0.0

Manufacturers of CO_2 unit coolers may also choose to utilize an AEDM. Furthermore, AEDM unit cooler validation classes do not distinguish between CO_2 unit coolers and non-CO_2 unit coolers. Therefore, manufacturers of CO_2 unit coolers may use the same validation classes as non-CO_2 unit coolers.

On the basis that the adopted test procedure changes will not require retesting and recertification, DOE certifies that this final rule does not have a ''significant economic impact on a substantial number of small entities,'' and that the preparation of a FRFA is not warranted. DOE will transmit a certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act of 1995

Manufacturers of walk-ins must certify to DOE that their products comply with any applicable energy conservation standards. To certify compliance, manufacturers must first obtain test data for their products according to the DOE test procedures, including any amendments adopted for those test procedures. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, walk-ins. (*See* generally 10 CFR part 429.) The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (PRA). This requirement has been approved by OMB under OMB Control Number 1910–1400. Public reporting burden for the certification is estimated to average 35 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.

DOE is not amending the certification or reporting requirements for walk-ins in this final rule. Instead, DOE may consider proposals to amend the certification requirements and reporting for walk-ins under a separate rulemaking regarding appliance and equipment certification. DOE will address changes to OMB Control Number 1910–1400 at that time, as necessary.

Notwithstanding any other provision of the 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 PRA, unless that collection of information displays a currently valid OMB Control Number.

D. Review Under the National Environmental Policy Act of 1969

In this final rule, DOE establishes test procedure amendments that it expects will be used to develop and implement future energy conservation standards for walk-ins. DOE has determined that this rule falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) and DOE's implementing regulations at 10 CFR part 1021. Specifically, DOE has determined that adopting test procedures for measuring energy efficiency of consumer products and industrial equipment is consistent with activities identified in 10 CFR part 1021, appendix A to subpart D, A5 and A6. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

E. Review Under Executive Order 13132

Executive Order 13132, ''Federalism,'' 64 FR 43255 (August 4, 1999), imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. The Executive order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have Federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE examined this final rule and determined that it 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. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the equipment that are the subject of this final rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297(d)) No further action is required by Executive Order 13132.

F. Review Under Executive Order 12988

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, ''Civil Justice Reform,'' 61 FR 4729 (Feb. 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; (3) provide a clear legal standard for affected conduct rather than a general standard; and (4) promote simplification and burden reduction. Section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation (1) clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and

burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in sections 3(a) and 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this final rule meets the relevant standards of Executive Order 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (''UMRA'') requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104–4, sec. 201 (codified at 2 U.S.C. 1531). For a regulatory action resulting in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed ''significant intergovernmental mandate,'' and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect small governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820; also available at *www.energy.gov/gc/office-general-counsel.* DOE examined this final rule according to UMRA and its statement of policy and determined that the rule contains neither an intergovernmental mandate, nor a mandate that may result in the expenditure of $100 million or more in any year, so these requirements do not apply.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This final rule will not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

DOE has determined, under Executive Order 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights,'' 53 FR 8859 (March 18, 1988), that this regulation will not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516 note) provides for agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). Pursuant to OMB Memorandum M–19–15, Improving Implementation of the Information Quality Act (April 24, 2019), DOE published updated guidelines which are available at *www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IQA%20Guidelines%20Dec%202019.pdf.* DOE has reviewed this final rule under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,'' 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OMB, a Statement of Energy Effects for any significant energy action. A ''significant energy action'' is defined as any action by an agency that promulgated or is expected to lead to promulgation of a final rule, and that (1) is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (3) is designated by the Administrator of OIRA as a significant energy action. For any significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use if the regulation is implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

This regulatory action is not a significant regulatory action under Executive Order 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as a significant energy action by the Administrator of OIRA. Therefore, it is not a significant energy action, and, accordingly, DOE has not prepared a Statement of Energy Effects.

L. Review Under Section 32 of the Federal Energy Administration Act of 1974

Under section 301 of the Department of Energy Organization Act (Pub. L. 95–91; 42 U.S.C. 7101), DOE must comply with section 32 of the Federal Energy Administration Act of 1974, as amended by the Federal Energy Administration Authorization Act of 1977. (15 U.S.C. 788; ''FEAA'') Section 32 essentially provides in relevant part that, where a rule authorizes or requires use of commercial standards, the rulemaking must inform the public of the use and background of such standards. In addition, section 32(c) requires DOE to consult with the Attorney General and the Chairman of the Federal Trade Commission (''FTC'') concerning the impact of the commercial or industry standards on competition.

The modifications to the test procedure for walk-ins adopted in this final rule incorporates testing methods contained in certain sections of the following commercial standards: NFRC 102–2020, ASTM C1199–14, ASTM C518–17, AHRI 1250–2020, AHRI 1250–2020, ANSI/ASHRAE 37–2009, and ANSI/ASHRAE 16–2016. DOE has evaluated these standards and is unable to conclude whether it fully complies with the requirements of section 32(b) of the FEAA (*i.e.,* whether it was developed in a manner that fully provides for public participation, comment, and review). DOE has consulted with both the Attorney General and the Chairman of the FTC about the impact on competition of using the methods contained in these standards.

M. Congressional Notification

As required by 5 U.S.C. 801, DOE will report to Congress on the promulgation of this rule before its effective date. The report will state that it has been determined that the rule is not a ''major rule'' as defined by 5 U.S.C. 804(2).

N. Description of Materials Incorporated by Reference

AHRI Standard 1250 (I–P)-2009 is an industry-accepted test procedure for measuring the performance of walk-in cooler and walk-in freezer refrigeration systems. Specifically, the test procedure codified by this final rule references AHRI 1250–2009 for testing walk-in refrigeration units. AHRI 1250–2009 is reasonably available on AHRI's website at *www.ahrinet.org/standards/search-standards.*

AHRI Standard 1250–2020 is an industry-accepted test procedure for measuring the performance of walk-in cooler and walk-in freezer refrigeration systems. Specifically, the test procedure codified by this final rule references AHRI 1250–2020 for testing walk-in refrigeration units. AHRI 1250–2020 is reasonably available on AHRI's website at *www.ahrinet.org/standards/search-standards.*

ANSI/AHRI Standard 420–2008 is an industry-accepted test procedure for rating the performance of forced-circulation free-delivery unit coolers for refrigeration and is referenced by AHRI 1250–2009. Specifically, the test procedure codified by this final rule references AHRI 420–2008 for the information that should be recorded when testing unit coolers. AHRI 420–2008 is reasonably available on AHRI's website at *www.ahrinet.org/standards/search-standards.*

ANSI/ASHRAE Standard 16–2016 is an industry-accepted test procedure for measuring cooling and heating capacity of room air conditioners, packaged terminal air conditioners, and packaged terminal heat pumps and is referenced by AHRI 1250–2020. Specifically, the test procedure codified by this final rule references ANSI/ASHRAE 16–2016 for test provisions related the capacity measurement of single-packaged dedicated systems for the appendix C1 test procedure. ANSI/ASHRAE 16–2016 is reasonably available on ASHRAE's website at *www.ashrae.org.*

ANSI/ASHRAE Standard 23.1–2010 is an industry-accepted test procedure for rating the performance of positive displacement refrigerant compressors and condensing units that operate at refrigerant subcritical temperatures and is referenced by AHRI 1250–2009 and AHRI 1250–2020. Specifically, the test procedure codified by this final rule references ANSI/ASHRAE 23.1–2010 for test provisions related to capacity measurement of condensing units using the compressor calibration method. ANSI/ASHRAE 23.1–2010 is reasonably available on ASHRAE's website at *www.ashrae.org.*

ANSI/ASHRAE Standard 37–2009 is an industry-accepted test procedure for testing and rating air-conditioning and heat pump equipment and is referenced by AHRI 1250–2020. Specifically, the test procedure codified by this final rule references ANSI/ASHRAE 37–2009 for test provisions related to capacity measurement of single-packaged dedicated systems for the appendix C1 test procedure. ANSI/ASHRAE 37–2009 is reasonably available on ASHRAE's website at *www.ashrae.org.*

ANSI/ASHRAE Standard 41.1–2013 is an industry-accepted test procedure for measuring temperature and is referenced by AHRI 1250–2020. Specifically, the test procedure codified by this final rule references ANSI/ASHRAE 41.1–2013 for temperature measurements for all refrigeration unit tests. ANSI/ASHRAE 41.1–2013 is reasonably available on ASHRAE's website at *www.ashrae.org.*

ANSI/ASHRAE Standard 41.3–2014 is an industry-accepted test procedure for measuring pressure and is referenced by AHRI 1250–2020. Specifically, the test procedure codified by this final rule references ANSI/ASHRAE 41.3–2014 for pressure measurements for all refrigeration unit tests. ANSI/ASHRAE 41.3–12014 is reasonably available on ASHRAE's website at *www.ashrae.org.*

ANSI/ASHRAE Standard 41.6–2014 is an industry-accepted test procedure for measuring humidity and is referenced by AHRI 1250–2020. Specifically, the test procedure codified by this final rule references ANSI/ASHRAE 41.6–2014 for test provisions related to capacity measurement of single-packaged dedicated systems for the appendix C1 test procedure. ANSI/ASHRAE 41.6–2014 is reasonably available on ASHRAE's website at *www.ashrae.org.*

ANSI/ASHRAE Standard 41.10–2013 is an industry-accepted test procedure for measuring the mass flow of volatile refrigerants with flowmeter test methods and is referenced by AHRI 1250–2020. Specifically, the test procedure codified by this final rule references ANSI/ASHRAE 41.10–2013 for measuring the flow rates of volatile refrigerants with flow meters for all refrigeration unit tests. ANSI/ASHRAE 41.10–2013 is reasonably available on ASHRAE's website at *www.ashrae.org.*

ASTM C518–17 is an industry-accepted test procedure for measuring thermal transmission properties using a heat flow meter apparatus. Specifically, the test procedure codified by this final rule references ASTM C518–17 for testing walk-in envelope components. ASTM C518–17 is reasonably available on ASTM's website at *www.astm.org.*

ASTM C1199–14 is an industry-accepted test procedure for measuring the steady state thermal transmittance of fenestration systems and is referenced by NFRC 102–2020. Specifically, the test procedure codified by this final rule references ASTM C1199–14 for testing walk-in envelope components. ASTM C1199–14 is reasonably available on ASTM's website at *www.astm.org.*

NFRC 102–2020 [E0A0], is an industry-accepted test procedure for measuring the steady state thermal transmittance of fenestration systems. Specifically, the test procedure codified by this final rule references NFRC 102–2020 for testing walk-in envelope components. NFRC 102–2020 is reasonably available on NFRC's website at *www.nfrc.org.*

V. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this final rule.

List of Subjects

10 CFR Part 429

Administrative practice and procedure, Confidential business information, Energy conservation, Household appliances, Imports, Intergovernmental relations, Reporting and recordkeeping requirements, Small businesses.

10 CFR Part 431

Administrative practice and procedure, Confidential business information, Energy conservation test procedures, Incorporation by reference, Reporting and recordkeeping requirements.

Signing Authority

This document of the Department of Energy was signed on April 12, 2023, by Francisco Alejandro Moreno, Acting Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on April 12, 2023.

Treena V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

For the reasons stated in the preamble, DOE is amending parts 429 and 431 of chapter II of title 10, Code of Federal Regulations as set forth below:

PART 429—CERTIFICATION, COMPLIANCE, AND ENFORCEMENT FOR CONSUMER PRODUCTS AND COMMERCIAL AND INDUSTRIAL EQUIPMENT

■ 1. The authority citation for part 429 continues to read as follows:

Authority: 42 U.S.C. 6291–6317; 28 U.S.C. 2461 note.

■ 2. Amend § 429.53 by revising paragraphs (a)(2)(i) and (a)(3) and adding paragraph (a)(4) to read as follows:

§ 429.53 Walk-in coolers and walk-in freezers.

(a) * * *

(2) * * *

(i) *Applicable test procedure.* If AWEF or AWEF2 is determined by testing, test according to the applicable provisions of § 431.304(b) of this chapter with the following equipment-specific provisions.

(A) *Dedicated condensing units.* Outdoor dedicated condensing refrigeration systems that are also designated for use in indoor applications must be tested and rated as both an outdoor dedicated condensing refrigeration system and an indoor dedicated refrigeration system.

(B) *Matched refrigeration systems.* A matched refrigeration system is not required to be rated if the constituent unit cooler(s) and dedicated condensing unit have been tested as specified in § 431.304(b)(4) of this chapter. However, if a manufacturer wishes to represent the efficiency of the matched refrigeration system as distinct from the efficiency of either constituent component, or if the manufacturer cannot rate one or both of the constituent components using the specified method, the manufacturer must test and rate the matched refrigeration system as specified in § 431.304(b)(4) of this chapter.

(C) *Detachable single-packaged dedicated systems.* Detachable single-packaged dedicated systems must be tested and rated as a single-packaged dedicated systems using the test procedure in § 431.304(b)(4) of this chapter.

(D) *Attached split systems.* Attached split systems must be tested and rated as dedicated condensing units and unit coolers using the test procedure in § 431.304(b)(4) of this chapter.

* * * * *

(3) For each basic model of walk-in cooler and walk-in freezer display and non-display door, the daily energy consumption must be determined by testing, in accordance with § 431.304 of this chapter and the provisions of this section, or by application of an AEDM that meets the requirements of § 429.70 and the provisions of this section.

(i) *Applicable test procedure.* Prior to October 31, 2023 use the test procedure for walk-ins in 10 CFR part 431, subpart R, appendix A, revised as of January 1, 2022, to determine daily energy consumption. Beginning October 31, 2023, use the test procedure in part 431, subpart R, appendix A of this chapter to determine daily energy consumption.

(ii) *Units to be tested.* For each basic model, a sample of sufficient size shall be randomly selected and tested to ensure that any represented value of daily energy consumption of a basic model or other measure of energy use for which consumers would favor lower values shall be greater than or equal to the higher of:

(A) The mean of the sample, where:

Equation 3 to Paragraph (a)(3)(ii)(A)

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} x_i$$

And $\bar{x}$ is the sample mean, n is the number of samples, and $\bar{x}_i$ is the ith sample; or,

(B) The upper 95 percent confidence limit (UCL) of the true mean divided by 1.05, where:

Equation 4 to Paragraph (a)(3)(ii)(B)

$$UCL = \bar{x} + t_{0.95}\frac{s}{\sqrt{n}}$$

And $\bar{x}$ is the sample mean, s is the sample standard deviation; n is the number of samples, and $t_{-0.95}$ is the statistic for a 95 percent one-tailed confidence interval with n-1 degrees of freedom (from appendix A to this subpart).

(4) For each basic model of walk-in cooler and walk-in freezer panel and non-display door, the R-value must be determined by testing, in accordance with § 431.304 of this chapter and the provisions of this section.

(i) *Applicable test procedure.* Prior to October 31, 2023, use the test procedure for walk-ins in 10 CFR part 431, subpart R, appendix B, revised as of January 1, 2022, to determine R-value. Beginning October 31, 2023, use the test procedure in appendix B to subpart R of part 431 of this chapter to determine R-value.

(ii) *Units to be tested.* For each basic model, a sample of sufficient size shall be randomly selected and tested to ensure that any represented value of R-value or other measure of efficiency of a basic model for which consumers would favor higher values shall be less than or equal to the lower of:

(A) The mean of the sample, where:

Equation 5 to Paragraph (a)(4)(ii)(A)

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} x_i$$

And $\bar{x}$ is the sample mean, n is the number of samples, and $\bar{x}_i$ is the ith sample; or,

(B) The lower 95 percent confidence limit (LCL) of the true mean divided by 0.95, where:

Equation 6 to Paragraph (a)(4)(ii)(B)

$$LCL = \bar{x} - t_{0.95}\frac{s}{\sqrt{n}}$$

And $\bar{x}$ is the sample mean, s is the sample standard deviation; n is the number of samples, and $t_{-0.95}$ is the statistic for a 95 percent one-tailed confidence interval with n–1 degree of freedom (from appendix A to this subpart).

* * * * *

■ 3. Amend § 429.70 by:

■ a. Adding a heading for the table in paragraph (c)(5)(viii)(A);

■ b. Renumbering tables 7 and 8 in paragraphs (m)(5)(vi) and (m)(5)(viii)(A), respectively, as tables 9 and 10;

■ c. Revising the heading to paragraph (f) and paragraphs (f)(2)(ii)(A) and (B);

■ d. Adding paragraphs (f)(2)(ii)(C) and (f)(2)(iii)(E);

■ e. Revising paragraphs (f)(2)(iv) and (f)(5)(vi); and

■ f. Adding a heading for the table in paragraph (h)(2)(iv).

The revisions and additions read as follows:

§ 429.70 Alternative methods for determining energy efficiency and energy use.

* * * * *

(c) * * *

(5) * * *

(viii) * * *

(A) * * *

Table 3 to Paragraph (c)(5)(viii)(A)

* * * * *

(f) *Alternative efficiency determination method (AEDM) for walk-*

in refrigeration systems and doors—
* * *

(2) * * *

(ii) * * *

(A) For refrigeration systems, which are subject to an energy efficiency metric, the predicted efficiency for each model calculated by applying the AEDM may not be more than five percent greater than the efficiency determined from the corresponding test of the model.

(B) For doors, which are subject to an energy consumption metric the predicted daily energy consumption for each model calculated by applying the AEDM may not be more than five percent less than the daily energy consumption determined from the corresponding test of the model.

(C) The predicted energy efficiency or energy consumption for each model calculated by applying the AEDM must meet or exceed the applicable federal energy conservation standard.

(iii) * * *

(E) For rating doors, an AEDM may not simulate or model components of the door that are not required to be tested by the DOE test procedure. That is, if the test results used to validate the AEDM are for the U-factor test of the door, the AEDM must estimate the daily energy consumption, specifically the conduction thermal load, and the direct and indirect electrical energy consumption, using the nominal values and calculation procedure specified in the DOE test procedure.

(iv) *WICF validation classes*—(A) *Doors.*

TABLE 4 TO PARAGRAPH (f)(2)(iv)(A)

Validation class	Minimum number of distinct models that must be tested
Display Doors, Medium Temperature	2 Basic Models.
Display Doors, Low Temperature	2 Basic Models.
Non-display Doors, Medium Temperature	2 Basic Models.
Non-display Doors, Low Temperature	2 Basic Models.

(B) *Refrigeration systems.* (*1*) For representations made prior to the compliance date of revised energy conservation standards for walk-in cooler and walk-in freezer refrigeration systems, use the following validation classes.

TABLE 5 TO PARAGRAPH (f)(2)(iv)(B)(*1*)

Validation class	Minimum number of distinct models that must be tested
Dedicated Condensing, Medium Temperature, Matched Pair Indoor System	2 Basic Models.
Dedicated Condensing, Medium Temperature, Matched Pair Outdoor System [1]	2 Basic Models.
Dedicated Condensing, Low Temperature, Matched Pair Indoor System	2 Basic Models.
Dedicated Condensing, Low Temperature, Matched Pair Outdoor System [1]	2 Basic Models.
Unit Cooler, High-temperature	2 Basic Models.
Unit Cooler, Medium Temperature	2 Basic Models.
Unit Cooler, Low Temperature	2 Basic Models.
Medium Temperature, Indoor Condensing Unit	2 Basic Models.
Medium Temperature, Outdoor Condensing Unit [1]	2 Basic Models.
Low Temperature, Indoor Condensing Unit	2 Basic Models.
Low Temperature, Outdoor Condensing Unit [1]	2 Basic Models.

[1] AEDMs validated for an outdoor class by testing only outdoor models of that class may be used to determine representative values for the corresponding indoor class, and additional validation testing is not required. AEDMs validated only for a given indoor class by testing indoor models or a mix of indoor and outdoor models may not be used to determine representative values for the corresponding outdoor class.

(*2*) For representations made on or after the compliance date of revised energy conservation standards for walk-in cooler and walk-in freezer refrigeration systems, use the following validation classes.

TABLE 6 TO PARAGRAPH (f)(2)(iv)(B)(*2*)

Validation class	Minimum number of distinct models that must be tested
Dedicated Condensing Unit, Medium Temperature, Indoor System	2 Basic Models.
Dedicated Condensing Unit, Medium Temperature, Outdoor System [1]	2 Basic Models.
Dedicated Condensing Unit, Low Temperature, Indoor System	2 Basic Models.
Dedicated Condensing Unit, Low Temperature, Outdoor System [1]	2 Basic Models.
Single-packaged Dedicated Condensing, High-temperature, Indoor System	2 Basic Models.
Single-packaged Dedicated Condensing, High-temperature, Outdoor System [1]	2 Basic Models.
Single-packaged Dedicated Condensing, Medium Temperature, Indoor System	2 Basic Models.
Single-packaged Dedicated Condensing, Medium Temperature, Outdoor System [1]	2 Basic Models.
Single-packaged Dedicated Condensing, Low Temperature, Indoor System	2 Basic Models.
Single-packaged Dedicated Condensing, Low Temperature, Indoor System [1]	2 Basic Models.
Matched Pair, High-temperature, Indoor Condensing Unit	2 Basic Models.
Matched Pair, High-temperature, Outdoor Condensing Unit [1]	2 Basic Models.
Matched Pair, Medium Temperature, Indoor Condensing Unit	2 Basic Models.
Matched Pair, Medium Temperature, Outdoor Condensing Unit [1]	2 Basic Models.

TABLE 6 TO PARAGRAPH (f)(2)(iv)(B)(*2*)—Continued

Validation class	Minimum number of distinct models that must be tested
Matched Pair, Low Temperature, Indoor Condensing Unit	2 Basic Models.
Matched Pair, Low Temperature, Outdoor Condensing Unit [1]	2 Basic Models.
Unit Cooler, High-temperature	2 Basic Models.
Unit Cooler, Medium Temperature	2 Basic Models.
Unit Cooler, Low Temperature	2 Basic Models.

[1] AEDMs validated for an outdoor class by testing only outdoor models of that class may be used to determine representative values for the corresponding indoor class, and additional validation testing is not required. AEDMs validated only for a given indoor class by testing indoor models or a mix of indoor and outdoor models may not be used to determine representative values for the corresponding outdoor class.

* * * * *

(5) * * *

(vi) *Tolerances.* For efficiency metrics, the result from a DOE verification test must be greater than or equal to the certified rating × (1 − the applicable tolerance). For energy consumption metrics, the result from a DOE verification test must be less than or equal to the certified rating × (1 + the applicable tolerance).

TABLE 7 TO PARAGRAPH (f)(5)(iv)

Equipment	Metric	Applicable tolerance (%)
Refrigeration systems (including components)	AWEF/AWEF2	5
Doors	Daily Energy Consumption	5

* * * * *

(h) * * *

(2) * * *

(iv) * * *

Table 8 to Paragraph (h)(2)(iv)

* * * * *

■ 4. Amend § 429.110 by revising paragraph (e)(2) to read as follows:

§ 429.110 Enforcement testing.

* * * * *

(e) * * *

(2) For automatic commercial ice makers; commercial refrigerators, freezers, and refrigerator-freezers; refrigerated bottled or canned vending machines; commercial air conditioners and heat pumps; commercial packaged boilers; commercial warm air furnaces; commercial water heating equipment; and walk-in cooler and walk-in freezer doors, panels, and refrigeration systems, DOE will use an initial sample size of not more than four units and follow the sampling plans in appendix B to this subpart.

* * * * *

■ 5. Amend § 429.134 by adding introductory text to paragraph (q) and revising paragraphs (q)(2) and (4) to read as follows:

§ 429.134 Product-specific enforcement provisions.

* * * * *

(q) * * * Prior to October 31, 2023, the provisions in 10 CFR 429.134, revised as of January 1, 2022, are applicable. On and after October 31, 2023, the following provisions apply.

* * * * *

(2) *Verification of refrigeration system net capacity.* The net capacity of the refrigeration system basic model will be measured pursuant to the test requirements of part 431, subpart R, appendix C of this chapter for each unit tested on and after October 31, 2023, but before the compliance date of revised energy conservation standards for walk-in cooler and walk-in freezer refrigeration systems. The net capacity of the refrigeration system basic model will be measured pursuant to the test requirements of part 431, subpart R, appendix C1 of this chapter for each unit tested on and after the compliance date of revised energy conservation standards for walk-in cooler and walk-in freezer refrigeration systems. The results of the measurement(s) will be averaged and compared to the value of net capacity certified by the manufacturer. The certified net capacity will be considered valid only if the average measured net capacity is within plus or minus five percent of the certified net capacity.

* * * * *

(4) *Verification of door electricity-consuming device power.* For each basic model of walk-in cooler and walk-in freezer door, DOE will calculate the door's energy consumption using the input power listed on the nameplate of each electricity-consuming device shipped with the door. If an electricity-consuming device shipped with a walk-in door does not have a nameplate or the nameplate does not list the device's input power, then DOE will use the device's rated input power included in the door's certification report. If the door is not certified or if the certification does not include a rated input power for an electricity-consuming device shipped with a walk-in door, DOE will use the measured input power. DOE also may validate the power listed on the nameplate or the rated input power by measuring it when energized using a power supply that provides power within the allowable voltage range listed on the component nameplate or the door nameplate, whichever is available. If the measured input power is more than 10 percent higher than the input power listed on the nameplate or the rated input power, as appropriate, then the measured input power shall be used in the door's energy consumption calculation.

(i) For electricity-consuming devices with controls, the maximum input wattage observed while energizing the device and activating the control shall be considered the measured input power. For anti-sweat heaters that are controlled based on humidity levels, the control may be activated by increasing relative humidity in the region of the controls without damaging the sensor. For lighting fixtures that are controlled with motion sensors, the control may be activated by simulating motion in the vicinity of the sensor. Other kinds of controls may be activated based on the functions of their sensor.

(ii) [Reserved]

* * * * *

PART 431—ENERGY EFFICIENCY PROGRAM FOR CERTAIN COMMERCIAL AND INDUSTRIAL EQUIPMENT

■ 6. The authority citation for part 431 continues to read as follows:

Authority: 42 U.S.C. 6291–6317; 28 U.S.C. 2461 note.

■ 7. Amend § 431.302 by:

■ a. Adding, in alphabetical order, definitions for ''Attached split system,'' ''CO_2 unit cooler,'' and ''Detachable single-packaged dedicated system'';

■ b. Revising the definition for ''Door'';

■ c. Adding, in alphabetical order, definitions for ''Door leaf,'' ''Door surface area,'' ''Ducted fan coil unit,'' ''Ducted multi-circuit single-packaged dedicated system,'' ''Ducted single-packaged dedicated system,'' ''High-temperature refrigeration system,'' ''Multi-circuit single-packaged dedicated system,'' and ''Non-display door''; and

■ d. Revising the definition of ''Walk-in cooler and walk-in freezer''.

The additions and revisions read as follows:

§ 431.302 Definitions concerning walk-in coolers and walk-in freezers.

* * * * *

Attached split system means a matched pair refrigeration system which is designed to be installed with the evaporator entirely inside the walk-in enclosure and the condenser entirely outside the walk-in enclosure, and the evaporator and condenser are permanently connected with structural members extending through the walk-in wall.

* * * * *

CO_2 *unit cooler* means a unit cooler that includes a nameplate listing only CO_2 as an approved refrigerant.

* * * * *

* * * * *

Detachable single-packaged dedicated system means a system consisting of a dedicated condensing unit and an insulated evaporator section in which the evaporator section is designed to be installed external to the walk-in enclosure and circulating air through the enclosure wall, and the condensing unit is designed to be installed either attached to the evaporator section or mounted remotely with a set of refrigerant lines connecting the two components.

* * * * *

Door means an assembly installed in an opening on an interior or exterior wall that is used to allow access or close off the opening and that is movable in a sliding, pivoting, hinged, or revolving manner of movement. For walk-in coolers and walk-in freezers, a door includes the frame (including mullions), the door leaf or multiple leaves (including glass) within the frame, and any other elements that form the assembly or part of its connection to the wall.

Door leaf means the pivoting, rolling, sliding, or swinging portion of a door.

Door surface area means the product of the height and width of a walk-in door measured external to the walk-in. The height and width dimensions shall be perpendicular to each other and parallel to the wall or panel of the walk-in to which the door is affixed. The height and width measurements shall extend to the edge of the frame and frame flange (as applicable) to which the door is affixed. For sliding doors, the height and width measurements shall include the track; however, the width (for horizontal sliding doors) or the height (for vertical sliding doors) shall be truncated to the external width or height of the door leaf or leaves and its frame or casings. The surface area of a display door is represented as A_{dd} and the surface area of a non-display door is represented as A_{nd}.

Ducted fan coil unit means an assembly, including means for forced air circulation capable of moving air against both internal and non-zero external flow resistance, and elements by which heat is transferred from air to refrigerant to cool the air, with provision for ducted installation.

Ducted multi-circuit single-packaged dedicated system means a ducted single-packaged dedicated system or a ducted single-packaged dedicated system (as defined in this section) that contains two or more refrigeration circuits that refrigerate a single stream of circulated air.

Ducted single-packaged dedicated system means a refrigeration system (as defined in this section) that is a single-packaged assembly designed for use with ducts, that includes one or more compressors, a condenser, a means for forced circulation of refrigerated air, and elements by which heat is transferred from air to refrigerant.

* * * * *

High-temperature refrigeration system means a refrigeration system which is not designed to operate below 45 °F.

* * * * *

Multi-circuit single-packaged dedicated system means a single-packaged dedicated system or a ducted single-packaged dedicated system (as defined in this section) that contains two or more refrigeration circuits that refrigerate a single stream of circulated air.

Non-display door means a door that is not a display door.

* * * * *

Walk-in cooler and walk-in freezer means an enclosed storage space including, but not limited to, panels, doors, and refrigeration system, refrigerated to temperatures, respectively, above, and at or below 32 degrees Fahrenheit that can be walked into, and has a total chilled storage area of less than 3,000 square feet; however, the terms do not include products designed and marketed exclusively for medical, scientific, or research purposes.

* * * * *

■ 8. Revise § 431.303 as follows:

§ 431.303 Materials incorporated 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. To enforce any edition other than that specified in this section, the U.S. Department of Energy (DOE) must publish a document in the **Federal Register** and the material must be available to the public. All approved incorporation by reference (IBR) material is available for inspection at DOE, and at the National Archives and Records Administration (NARA). Contact DOE at: the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, Sixth Floor, 950 L'Enfant Plaza SW, Washington, DC 20024, (202) 586–9127, *Buildings@ee.doe.gov, www.energy.gov/eere/buildings/building-technologies-office.* 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.* The material may be obtained from the sources in the following paragraphs of this section.

(b) *AHRI.* Air-Conditioning, Heating, and Refrigeration Institute, 2111 Wilson Boulevard, Suite 500, Arlington, VA 22201; (703) 600–0366; *www.ahrinet.org.*

(1) ANSI/AHRI Standard 420–2008 (''AHRI 420–2008''), *Performance Rating of Forced-Circulation Free-Delivery Unit Coolers for Refrigeration,* Copyright 2008; IBR approved for appendix C to subpart R.

(2) AHRI Standard 1250P (I–P)–2009 (''AHRI 1250–2009''), *Standard for Performance Rating of Walk-in Coolers*

and Freezers, (including Errata sheet dated December 2015), copyright 2009, except Table 15 and Table 16; IBR approved for appendix C to subpart R.

(3) AHRI Standard 1250 (''AHRI 1250–2020''), *Standard for Performance Rating of Walk-in Coolers and Freezers,* copyright 2020; IBR approved for appendix C1 to subpart R.

(c) *ASHRAE.* American Society of Heating, Refrigerating and Air-Conditioning Engineers, 180 Technology Parkway, Peachtree Corners, GA 30092; (404) 636–8400; *www.ashrae.org.*

(1) ANSI/ASHRAE Standard 16–2016 (''ANSI/ASHRAE 16''), *Method of Testing for Rating Room Air Conditioners, Packaged Terminal Air Conditioners, and Packaged Terminal Heat Pumps for Cooling and Heating Capacity,* ANSI-approved November 1, 2016; IBR approved for appendix C1 to subpart R.

(2) ANSI/ASHRAE Standard 23.1–2010 (''ASHRAE 23.1–2010''), *Methods of Testing for Rating the Performance of Positive Displacement Refrigerant Compressors and Condensing Units that Operate at Subcritical Temperatures of the Refrigerant,* ANSI-approved January 28, 2010; IBR approved for appendices C and C1 to subpart R.

(3) ANSI/ASHRAE Standard 37–2009 (''ANSI/ASHRAE 37''), *Methods of Testing for Rating Electrically Driven Unitary Air-Conditioning and Heat Pump Equipment,* ASHRAE-approved June 24, 2009; IBR approved for appendices C and C1 to subpart R.

(4) ANSI/ASHRAE Standard 41.1–2013 (''ANSI/ASHRAE 41.1''), *Standard Method for Temperature Measurement,* ANSI-approved January 30, 2013; IBR approved for appendix C1 to subpart R.

(5) ANSI/ASHRAE Standard 41.3–2014 (''ANSI/ASHRAE 41.3''), *Standard Methods for Pressure Measurement,* ANSI-approved July 3, 2014; IBR approved for appendix C1 to subpart R.

(6) ANSI/ASHRAE Standard 41.6–2014 (''ANSI/ASHRAE 41.6''), *Standard Method for Humidity Measurement,* ANSI-approved July 3, 2014; IBR approved for appendix C1 to subpart R.

(7) ANSI/ASHRAE Standard 41.10–2013 (''ANSI/ASHRAE 41.10''), *Standard Methods for Refrigerant Mass Flow Measurement Using Flowmeters,* ANSI-approved June 27, 2013; IBR approved for appendix C1 to subpart R.

(d) *ASTM.* ASTM, International, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959; (610) 832–9500; *www.astm.org.*

(1) ASTM C518–17, *Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus,* approved May 1, 2017; IBR approved for appendix B to subpart R.

(2) ASTM C1199–14, *Standard Test Method for Measuring the Steady-State Thermal Transmittance of Fenestration Systems Using Hot Box Methods,* approved February 1, 2014; IBR approved for appendix A to subpart R.

(e) *NFRC.* National Fenestration Rating Council, 6305 Ivy Lane, Ste. 140, Greenbelt, MD 20770; (301) 589–1776; *www.nfrc.org/.*

(1) NFRC 102–2020 [E0A0] (''NFRC 102–2020''), *Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems,* copyright 2013; IBR approved for appendix A to subpart R.

(2) [Reserved]

■ 9. Amend § 431.304 by revising paragraph (b) to read as follows:

§ 431.304 Uniform test method for the measurement of energy consumption of walk-in coolers and walk-in freezers.

* * * * *

(b) *Testing and calculations.* Determine the energy efficiency and/or energy consumption of the specified walk-in cooler and walk-in freezer components by conducting the appropriate test procedure as follows:

(1) *Display panels.* Determine the energy use of walk-in cooler and walk-in freezer display panels by conducting the test procedure set forth in appendix A to this subpart.

(2) *Display doors and non-display doors.* Determine the energy use of walk-in cooler and walk-in freezer display doors and non-display doors by conducting the test procedure set forth in appendix A to this subpart.

(3) *Non-display panels and non-display doors.* Determine the R-value of insulation of walk-in cooler and walk-in freezer non-display panels and non-display doors by conducting the test procedure set forth in appendix B to this subpart.

(4) *Refrigeration systems.* Determine the AWEF and net capacity of walk-in cooler and walk-in freezer refrigeration systems by conducting the test procedures set forth in appendix C or C1 to this subpart, as applicable. Refer to the notes at the beginning of those appendices to determine the applicable appendix to use for testing.

(i) *For unit coolers:* follow the general testing provisions in sections 3.1 and 3.2, and the equipment-specific provisions in section 3.3 of appendix C or sections 4.5 through 4.8 of appendix C1.

(ii) *For dedicated condensing units:* follow the general testing provisions in sections 3.1 and 3.2, and the product-specific provisions in section 3.4 of appendix C or sections 4.5 through 4.8 of appendix C1.

(iii) *For single-packaged dedicated systems:* follow the general testing provisions in sections 3.1 and 3.2, and the product-specific provisions in section 3.3 of appendix C or sections 4.5 through 4.8 of appendix C1.

■ 10. Revise appendix A to subpart R of part 431 to read as follows:

Appendix A to Subpart R of Part 431—Uniform Test Method for the Measurement of Energy Consumption of the Components of Envelopes of Walk-In Coolers and Walk-In Freezers

Note: Prior to October 31, 2023, representations with respect to the energy use of envelope components of walk-in coolers and walk-in freezers, including compliance certifications, must be based on testing conducted in accordance with the applicable provisions of 10 CFR part 431, subpart R, appendix A, revised as of January 1, 2022. Beginning October 31, 2023, representations with respect to energy use of envelope components of walk-in coolers and walk-in freezers, including compliance certifications, must be based on testing conducted in accordance with this appendix.

0. Incorporation by Reference

DOE incorporated by reference in § 431.303 the entire standard for ASTM C1199–14 and NFRC 102–2020. However, certain enumerated provisions of these standards, as set forth in sections 0.1 and 0.2 of this appendix are inapplicable. To the extent that there is a conflict between the terms or provisions of a referenced industry standard and the CFR, the CFR provisions control.

0.1 ASTM C1199–14

(a) Section 1 Scope, is inapplicable,

(b) Section 4 Significance and Use is inapplicable,

(c) Section 7.3 Test Conditions, is inapplicable,

(d) Section 10 Report, is inapplicable, and

(e) Section 11 Precision and Bias, is inapplicable.

0.2 NFRC 102–2020

(a) Section 1 Scope, is inapplicable,

(b) Section 4 Significance and Use, is inapplicable,

(c) Section 7.3 Test Conditions, is inapplicable,

(d) Section 10 Report, is inapplicable,

(e) Section 11 Precision and Bias, is inapplicable,

(f) Annex A3 Standard Test Method for Determining the Thermal Transmittance of Tubular Daylighting Devices, is inapplicable, and

(g) Annex A5 Tables and Figures, is inapplicable.

1. *General.* The following sections of this appendix provide additional instructions for testing. In cases where there is a conflict, the language of this appendix takes highest precedence, followed by NFRC 102–2020, followed by ASTM C1199–14. Any subsequent amendment to a referenced

document by the standard-setting organization will not affect the test procedure in this appendix, unless and until the test procedure is amended by DOE. Material is incorporated as it exists on the date of the approval, and a notification of any change in the incorporation will be published in the **Federal Register**.

2. Scope

This appendix covers the test requirements used to measure the energy consumption of the components that make up the envelope of a walk-in cooler or walk-in freezer.

3. Definitions

The definitions contained in § 431.302 are applicable to this appendix.

4. Additional Definitions

4.1 *Automatic door opener/closer* means a device or control system that ''automatically'' opens and closes doors without direct user contact, such as a motion sensor that senses when a forklift is approaching the entrance to a door and opens it, and then closes the door after the forklift has passed.

4.2 *Percent time off (PTO)* means the percent of time that an electrical device is assumed to be off.4.3 *Rated power* means the input power of an electricity-consuming device as specified on the device's nameplate. If the device does not have a nameplate or such nameplate does not list the device's input power, then the rated power must be determined from the device's product data sheet, literature, or installation instructions that come with the device or are available online.

4.4 *Rating conditions* means, unless explicitly stated otherwise, all conditions shown in table A.1 of this appendix.

TABLE A.1—TEMPERATURE CONDITIONS

Internal Temperatures (cooled space within the envelope)	
Cooler Dry-Bulb Temperature ..	35 °F
Freezer Dry-Bulb Temperature	− 10 °F
External Temperatures (space external to the envelope)	
Freezer and Cooler Dry-Bulb Temperatures	75 °F

5. Test Methods and Measurements

5.1 U-Factor Test of Doors and Display Panels

Determine the U-factor of the entire door or display panel, including the frame, in accordance with the specified sections of NFRC 102–2020 and ASTM C1199–14 at the temperature conditions listed in table A.1 of this appendix.

5.2 Required Test Measurements

2.1 For display doors and display panels, thermal transmittance, U_{dd} or U_{dp}, respectively, shall be the standardized thermal transmittance, U_{ST}, determined per section 5.1.1 of this appendix.

5.2.2 For non-display doors, thermal transmittance, U_{nd}, shall be the standardized thermal transmittance, U_{ST}, determined per section 5.1 of this appendix.

5.2.3 Projected area of the test specimen, A_s, in ft², as referenced in ASTM C1199–14.

6. Calculations

6.1 Display Panels

6.1.1 Determine the U-factor of the display panel in accordance with section 5.1 of this appendix, in units of Btu/(h-ft²-°F).

6.1.2 Calculate the temperature differential, ΔT_{dp}, °F, for the display panel, as follows:

$$\Delta T_{dp} = \left|T_{DB,ext,dp} - T_{DB,int,dp}\right| \quad \text{(A-1)}$$

Where:

$T_{DB,ext,dp}$ = dry-bulb air external temperature, °F, as prescribed in table A.1 of this appendix; and

$T_{DB,int,dp}$ = dry-bulb air temperature internal to the cooler or freezer, °F, as prescribed in table A.1 of this appendix.

6.1.3 Calculate the conduction load through the display panel, $Q_{cond\text{-}dp}$, Btu/h, as follows:

$$Q_{cond,dp} = A_s \times \Delta T_{dp} \times U_{dp} \quad \text{(A-2)}$$

Where:

A_s = projected area of the test specimen (same as the test specimen aperture in the surround panel) or the area used to determine the U-factor in section 5.1 of this appendix, ft²;

ΔT_{dp} = temperature differential between refrigerated and adjacent zones, °F; and

U_{dp} = thermal transmittance, U-factor, of the display panel in accordance with section 5.1 of this appendix, Btu/(h-ft²-°F).

6.1.4 Calculate the total daily energy consumption, E_{dp}, kWh/day, as follows:

$$E_{dp} = \frac{Q_{cond,dp}}{EER} \times \frac{24\ h \times 1\ kW}{1\ day \times 1000\ W} \quad \text{(A-3)}$$

Where:

$Q_{cond,dp}$ = the conduction load through the display panel, Btu/h; and

EER = Energy Efficiency Ratio of walk-in (cooler or freezer), Btu/W-h. For coolers, use EER = 12.4 Btu/W-h. For freezers, use EER = 6.3 Btu/W-h.

6.2 Display Doors

6.2.1 Conduction Through Display Doors

6.2.1.1 Determine the U-factor of the display door in accordance with section 5.1 of this appendix, in units of Btu/(h-ft²-°F).

6.2.1.2 Calculate the temperature differential, ΔT_{dd}, °F, for the display door as follows:

$$\Delta T_{dd} = \left|T_{DB,ext,dd} - T_{DB,int,dd}\right| \quad \text{(A-4)}$$

Where:

$T_{DB,ext,dd}$ = dry-bulb air temperature external to the display door, °F, as prescribed in table A.1 of this appendix; and

$T_{DB,int,dd}$ = dry-bulb air temperature internal to the display door, °F, as prescribed in table A.1 of this appendix.

6.2.1.3 Calculate the conduction load through the display doors, $Q_{cond,dd}$, Btu/h, as follows:

$$Q_{cond,dd} = A_s \times \Delta T_{dd} \times U_{dd} \quad \text{(A-5)}$$

Where:

A_s = projected area of the test specimen (same as the test specimen aperture in the surround panel) or the area used to determine the U-factor in section 5.1 of this appendix, ft²;

ΔT_{dd} = temperature differential between refrigerated and adjacent zones, °F; and

U_{dd} = thermal transmittance, U-factor of the door, in accordance with section 5.1 of this appendix, Btu/(h-ft²-°F).

6.2.1.4 Calculate the total daily energy consumption due to conduction thermal load, $E_{dd,thermal}$, kWh/day, as follows:

$$E_{dd,thermal} = \frac{Q_{cond,dd}}{EER} \times \frac{24\ h \times 1\ kW}{1\ day \times 1000\ W} \quad \text{(A-6)}$$

Where:

$Q_{cond,dd}$ = the conduction load through the display door, Btu/h; and

EER = EER of walk-in (cooler or freezer), Btu/W-h. For coolers, use EER = 12.4 Btu/(W-h). For freezers, use EER = 6.3 Btu/(W-h).

6.2.2 Direct Energy Consumption of Electrical Component(s) of Display Doors

Electrical components associated with display doors could include but are not limited to: heater wire (for anti-sweat or anti-freeze application); lights; door motors; control system units; and sensors.

6.2.2.1 Select the required value for percent time off (PTO) for each type of electricity-consuming device per table A.2 of this appendix, PTO_t (%).

TABLE A.2—PERCENT TIME OFF VALUES

Device	Temperature condition	Controls, timer, or other auto-shut-off system	Percent time off value (%)
Lights	All	Without	25
		With	50
Anti-sweat heaters	All	Without	0
	Coolers	With	75
	Freezers	With	50
Door motors	All		97
All other electricity-consuming devices	All	Without	0
		With	25

6.2.2.2 Calculate the power usage for each type of electricity-consuming device, $P_{dd,comp,u,t}$, kWh/day, as follows:

$$P_{dd,comp,u,t} = P_{rated,u,t} \times (1 - PTO_{u,t}) \times n_{u,t} \times \frac{24\ h}{day} \quad \text{(A-7)}$$

Where:

u = the index for each of type of electricity-consuming device located on either (1) the interior facing side of the display door or within the inside portion of the display door, (2) the exterior facing side of the display door, or (3) any combination of (1) and (2). For purposes of this calculation, the interior index is represented by u = int and the exterior index is represented by u = ext. If the electrical component is both on the interior and exterior side of the display door then use u = int. For anti-sweat heaters sited anywhere in the display door, 75 percent of the total power is be attributed to u = int and 25 percent of the total power is attributed to u = ext;

t = index for each type of electricity-consuming device with identical rated power;

$P_{rated,u,t}$ = rated input power of each component, of type t, kW;

$PTO_{u,t}$ = percent time off, for device of type t, %; and

$n_{u,t}$ = number of devices at the rated input power of type t, unitless. 6.2.2.3 Calculate the total electrical energy consumption for interior and exterior power, $P_{dd,tot,int}$ (kWh/day) and $P_{dd,tot,ext}$ (kWh/day), respectively, as follows:

$$P_{dd,tot,int} = \sum_1^t P_{dd,comp,int,t} \quad \text{(A-8)}$$

$$P_{dd,tot,ext} = \sum_1^t P_{dd,comp,ext,t} \quad \text{(A-9)}$$

Where:

t = index for each type of electricity-consuming device with identical rated input power;

$P_{dd,comp,int,t}$ = the energy usage for an electricity-consuming device sited on the interior facing side of or in the display door, of type t, kWh/day; and

$P_{dd,comp,ext,t}$ = the energy usage for an electricity-consuming device sited on the external facing side of the display door, of type t, kWh/day. 6.2.2.4 Calculate the total electrical energy consumption, $P_{dd,tot}$, (kWh/day), as follows:

$$P_{dd,tot} = P_{dd,tot,int} + P_{dd,tot,ext} \quad \text{(A-10)}$$

Where:

$P_{dd,tot,int}$ = the total interior electrical energy usage for the display door, kWh/day; and

$P_{dd,tot,ext}$ = the total exterior electrical energy usage for the display door, kWh/day.

6.2.3 Total Indirect Electricity Consumption Due to Electrical Devices

Calculate the additional refrigeration energy consumption due to thermal output from electrical components sited inside the display door, $C_{dd,load}$, kWh/day, as follows:

$$C_{dd,load} = P_{dd,tot,int} \times \frac{3.412\ Btu/(Wh)}{EER} \quad \text{(A-11)}$$

Where:

$P_{dd,tot,int}$ = The total internal electrical energy consumption due for the display door, kWh/day; and

EER = EER of walk-in cooler or walk-in freezer, Btu/W-h. For coolers, use EER = 12.4 Btu/(W-h). For freezers, use EER = 6.3 Btu/(W-h).

6.2.4 Total Display Door Energy Consumption

Calculate the total energy, $E_{dd,tot}$, kWh/day,

$$E_{dd,tot} = E_{dd,thermal} + P_{dd,tot} + C_{dd,load} \quad \text{(A-12)}$$

Where:

$E_{dd,thermal}$ = the total daily energy consumption due to thermal load for the display door, kWh/day;

$P_{dd,tot}$ = the total electrical load, kWh/day; and

$C_{dd,load}$ = additional refrigeration load due to thermal output from electrical components contained within the display door, kWh/day.

6.3 Non-Display Doors

6.3.1 Conduction Through Non-Display Doors

6.3.1.1 Determine the U-factor of the non-display door in accordance with section 5.1 of this appendix, in units of Btu/(h-ft²-°F).

6.3.1.2 Calculate the temperature differential of the non-display door, ΔT_{nd}, °F, as follows:

$$\Delta T_{nd} = \left| T_{DB,ext,nd} - T_{DB,int,nd} \right| \quad \text{(A-13)}$$

Where:

$T_{DB,ext,nd}$ = dry-bulb air external temperature, °F, as prescribed by table A.1 of this appendix; and

$T_{DB,int,nd}$ = dry-bulb air internal temperature, °F, as prescribed by table A.1 of this appendix. If the component spans both cooler and freezer spaces, the freezer temperature must be used.

6.3.1.3 Calculate the conduction load through the non-display door: $Q_{cond,nd}$, Btu/h,

$$Q_{cond,nd} = A_s \times \Delta T_{nd} \times U_{nd} \quad \text{(A-14)}$$

Where:

A_s = projected area of the test specimen (same as the test specimen aperture in the surround panel) or the area used to determine the U-factor in section 5.1 of this appendix, ft²;

ΔT_{nd} = temperature differential across the non-display door, °F; and

U_{nd} = thermal transmittance, U-factor of the door, in accordance with section 5.1 of this appendix, Btu/(h-ft²-°F).

6.3.1.4 Calculate the total daily energy consumption due to thermal load, $E_{nd,thermal}$, kWh/day, as follows:

$$E_{nd,thermal} = \frac{Q_{cond,nd}}{EER} \times \frac{24\ h \times 1\ kW}{1\ day \times 1000\ W} \quad \text{(A-15)}$$

Where:

$Q_{cond,nd}$ = the conduction load through the non-display door, Btu/h; and

EER = EER of walk-in (cooler or freezer), Btu/W-h. For coolers, use EER = 12.4 Btu/(W-h). For freezers, use EER = 6.3 Btu/(W-h).

6.3.2 Direct Energy Consumption of Electrical Components of Non-Display Doors

Electrical components associated with non-display doors comprise could include, but are not limited to: heater wire (for anti-sweat or anti-freeze application), lights, door motors, control system units, and sensors.

6.3.2.1 Select the required value for percent time off for each type of electricity-consuming device per table A.2 of this appendix, PTO_t (%).

6.3.2.2 Calculate the power usage for each type of electricity-consuming device, $P_{nd,comp,u,t}$, kWh/day, as follows:

$$P_{nd,comp,u,t} = P_{rated,u,t} \times (1 - PTO_{u,t}) \times n_{u,t} \times \frac{24\ h}{day} \quad \text{(A-16)}$$

Where:

u = the index for each of type of electricity-consuming device located on either (1) the interior facing side of the non-display door or within the inside portion of the non-display door, (2) the exterior facing side of the non-display door, or (3) any combination of (1) and (2). For purposes of this calculation, the interior index is represented by u = int and the exterior index is represented by u = ext. If the electrical component is both on the interior and exterior side of the non-display door then use u = int. For anti-sweat heaters sited anywhere in the non-display door, 75 percent of the total power is be attributed to u = int and 25 percent of the total power is attributed to u = ext;

t = index for each type of electricity-consuming device with identical rated input power;

$P_{rated,u,t}$ = rated input power of each component, of type t, kW;

$PTO_{u,t}$ = percent time off, for device of type t, %; and

$n_{u,t}$ = number of devices at the rated input power of type t, unitless.

6.3.2.3 Calculate the total electrical energy consumption for interior and exterior power, $P_{nd,tot,int}$, kWh/day, and $P_{nd,tot,ext}$, kWh/day, respectively, as follows:

$$P_{nd,tot,int} = \sum_1^t P_{nd,comp,int,t} \quad \text{(A-17)}$$

$$P_{nd,tot,ext} = \sum_1^t P_{nd,comp,ext,t} \quad \text{(A-18)}$$

Where:

t = index for each type of electricity-consuming device with identical rated input power;

$P_{nd,comp,int,t}$ = the energy usage for an electricity-consuming device sited on the internal facing side or internal to the non-display door, of type t, kWh/day; and

$P_{nd,comp,ext,t}$ = the energy usage for an electricity-consuming device sited on the external facing side of the non-display door, of type t, kWh/day. For anti-sweat heaters,

6.3.2.4 Calculate the total electrical energy consumption, $P_{nd,tot}$, kWh/day, as follows:

$$P_{nd,tot} = P_{nd,tot,int} + P_{nd,tot,ext} \quad \text{(A-19)}$$

Where:

$P_{nd,tot,int}$ = the total interior electrical energy usage for the non-display door, of type t, kWh/day; and

$P_{nd,tot,ext}$ = the total exterior electrical energy usage for the non-display door, of type t, kWh/day.

6.3.3 Total Indirect Electricity Consumption Due to Electrical Devices

Calculate the additional refrigeration energy consumption due to thermal output from electrical components associated with the non-display door, $C_{nd,load}$, kWh/day, as follows:

$$C_{nd,load} = P_{nd,tot,int} \times \frac{3.412\ Btu/(Wh)}{EER} \quad \text{(A-20)}$$

Where:

$P_{nd,tot,int}$ = the total interior electrical energy consumption for the non-display door, kWh/day; and

EER = EER of walk-in cooler or freezer, Btu/W-h. For coolers, use EER = 12.4 Btu/(W-h). For freezers, use EER = 6.3 Btu/(W-h).

6.3.4 Total Non-Display Door Energy Consumption

Calculate the total energy, $E_{nd,tot}$, kWh/day, as follows:

$$E_{nd,tot} = E_{nd,thermal} + P_{nd,tot} + C_{nd,load} \quad \text{(A-21)}$$

Where:

$E_{nd,thermal}$ = the total daily energy consumption due to thermal load for the non-display door, kWh/day;

$P_{nd,tot}$ = the total electrical energy consumption, kWh/day; and

$C_{nd,load}$ = additional refrigeration load due to thermal output from electrical components contained on the inside face of the non-display door, kWh/day.

■ 11. Revise appendix B to subpart R of part 431 to read as follows:

Appendix B to Subpart R of Part 431—Uniform Test Method for the Measurement of R-Value of Insulation for Envelope Components of Walk-In Coolers and Walk-In Freezers

Note: Prior to October 31, 2023, representations with respect to the R-value for insulation of envelope components of walk-in coolers and walk-in freezers, including compliance certifications, must be based on testing conducted in accordance with the applicable provisions of 10 CFR part 431, subpart R, appendix B, revised as of January 1, 2022. Beginning October 31, 2023, representations with respect to R-value for insulation of envelope components of walk-in coolers and walk-in freezers, including compliance certifications, must be based on testing conducted in accordance with this appendix.

0. Incorporation by Reference

DOE incorporated by reference in § 431.303 the entire standard for ASTM C518–17. However, certain enumerated provisions of ASTM C518–17, as set forth in paragraph 0.1 of this appendix, are inapplicable. To the extent there is a conflict between the terms or provisions of a referenced industry standard and the CFR, the CFR provisions control.

0.1 ASTM C518–17

(a) Section 1 Scope, is inapplicable,

(b) Section 4 Significance and Use, is inapplicable,

(c) Section 7.3 Specimen Conditioning, is inapplicable,

(d) Section 9 Report, is inapplicable,

(e) Section 10 Precision and Bias, is inapplicable,

(f) Section 11 Keywords, is inapplicable,

(g) Annex A2 Equipment Error Analysis, is inapplicable,

(h) Appendix X1 is inapplicable,

(i) Appendix X2 Response of Heat Flux Transducers, is inapplicable, and

(j) Appendix X3 Proven Performance of a Heat Flow Apparatus, is inapplicable.

0.2 [Reserved]

1. General

The following sections of this appendix provide additional instructions for testing. In cases where there is a conflict, the language of this appendix takes highest precedence, followed by ASTM C518–17. Any subsequent amendment to a referenced document by the standard-setting organization will not affect the test procedure in this appendix, unless and until the test procedure is amended by DOE. Material is incorporated as it exists on the date of the approval, and a notification of any change in the incorporation will be published in the **Federal Register**.

2. Scope

This appendix covers the test requirements used to measure the R-value of non-display panels and non-display doors of a walk-in cooler or walk-in freezer.

3. Definitions

The definitions contained in § 431.302 apply to this appendix.

4. Additional Definitions

4.1 *Edge region* means a region of the envelope component that is wide enough to encompass any framing members. If the envelope component contains framing members (*e.g.,* a wood frame) then the width of the edge region must be as wide as any framing member plus an additional 2 in. ± 0.25 in.

5. Test Methods, Measurements, and Calculations

5.1 *General.* Foam shall be tested after it is produced in its final chemical form. For foam produced inside of an envelope component (''foam-in-place''), ''final chemical form'' means the foam is cured as intended and ready for use as a finished envelope component. For foam produced as board stock (*e.g.,* polystyrene), ''final chemical form'' means after extrusion and ready for assembly into an envelope component or after assembly into an envelope component. Foam must not include any structural members or non-foam materials during testing in accordance with ASTM C518–17. When preparing the specimen for test, a high-speed bandsaw or a meat slicer are two types of recommended cutting tools. Hot wire cutters or other heated tools shall not be used for cutting foam test specimens.

5.2 Specimen Preparation

5.2.1 *Determining the thickness around the perimeter of the envelope component,* t_p. The full thickness of an envelope component around the perimeter, which may include facers on one or both sides, shall be determined as follows:

5.2.1.1 At least 8 thickness measurements shall be taken around the perimeter of the envelope component, at least 2 inches from the edge region, and avoiding any regions with hardware or fixtures.

5.2.1.2 The average of the thickness measurements taken around the perimeter of the envelope component shall be the thickness around the perimeter of the envelope component, t_p.

5.2.1.3 Measure and record the width, w_p, and height, h_p, of the envelope component. The surface area of the envelope component, A_p, shall be determined as follows:

$$A_p = w_p \times h_p \quad \text{(B-1)}$$

Where:

w_p = width of the envelope component, in.; and

h_p = height of the envelope component, in.

5.2.2. *Removing the sample from the envelope component.*

5.2.2.1. Determine the center of the envelope component relative to its height and its width.

5.2.2.2. Cut a sample from the envelope component that is at least the length and width dimensions of the heat flow meter, and where the marked center of the sample is at least 3 inches from any cut edge.

5.2.2.3. If the center of the envelope component contains any non-foam components (excluding facers), additional samples may be cut adjacent to the previous cut that is at least the length and width dimensions of the heat flow meter and is greater than 12 inches from the edge region.

5.2.3. *Determining the thickness at the center of the envelope component,* t_c. The full thickness of an envelope component at the center, which may include facers on one or both sides, shall be determined as follows:

5.2.3.1. At least 2 thickness measurements shall be taken in each quadrant of the cut sample removed from the envelope component per section 5.2.2 of this appendix, for a total of at least 8 measurements.

5.2.3.2. The average of the thickness measurements of the cut sample removed from the envelope component shall be the overall thickness of the cut sample, t_c.

5.2.3.3. Measure and record the width and height of the cut sample removed from the envelope component. The surface area of the cut sample removed from the envelope component, A_c., shall be determined as follows:

$$A_c = w_c \times h_c \quad \text{(B-2)}$$

Where:

w_c = width of the cut sample removed from the envelope component, in.; and

h_c = height of the cut sample removed from the envelope component, in.

5.2.4. *Determining the total thickness of the foam within the envelope component,* t_{foam}. The average total thickness of the foam sample, without facers, shall be determined as follows:

5.2.4.1. Remove the facers on the envelope component sample, while minimally disturbing the foam.

5.2.4.2. Measure the thickness of each facer in 4 locations for a total of 4 measurements if 1 facer is removed, and a total of 8 measurements if 2 facers are removed. The average of all facer measurements shall be the thickness of the facers, t_{facers}, in.

5.2.4.3. The average total thickness of the foam, t_{foam}, in., shall be determined as follows:

$$t_{foam} = \frac{t_c A_c + t_p (A_p - A_c)}{A_p} - t_{facers} \quad \text{(B-3)}$$

Where:

t_c = the average thickness of the center of the envelope component, in., as determined per sections 5.2.3.1 and 5.2.3.2 of this appendix;

A_c = the surface area of the center of the envelope component, in^2., as determined per section 5.2.3.3 of this appendix;

t_p = the average thickness of the perimeter of the envelope component, in., as determined per sections 5.2.1.1 and 5.2.1.2 of this appendix;

A_p = the average thickness of the center of the envelope component, in^2, as determined per section 5.2.1.3 of this appendix;

t_{facers} = the average thickness of the facers of the envelope component, in., as determined per section 5.2.4.2 of this appendix.

5.2.5. *Cutting, measuring, and determining parallelism and flatness of a 1-inch-thick specimen for test from the center of the cut envelope component sample.*

5.2.5.1. Cut a 1 ± 0.1-inch-thick specimen from the center of the cut envelope sample. The 1-inch-thick test specimen shall be cut from the point that is equidistant from both edges of the sample (*i.e.,* shall be cut from the center point that would be directly between the interior and exterior space of the walk-in).

5.2.5.2. Document through measurement or photographs with measurement indicators that the specimen was taken from the center of the sample.

5.2.5.3 After the 1-inch specimen has been cut, and prior to testing, place the specimen on a flat surface and allow gravity to determine the specimen's position on the surface. This will be side 1.

5.2.5.4 To determine the flatness of side 1, take at least nine height measurements at equidistant positions on the specimen (*i.e.,* the specimen would be divided into 9 regions and height measurements taken at the center of each of these nine regions). Contact with the measurement indicator shall not indent the foam surface. From the height measurements taken, determine the least squares plane for side 1. For each measurement location, calculate the theoretical height from the least squares plane for side 1. Then, calculate the difference between the measured height and the theoretical least squares plane height at each location. The maximum difference minus the minimum difference out of the nine measurement locations is the flatness of side 1. For side 1 of the specimen to be considered flat, this shall be less than or equal to 0.03 inches.

5.2.5.5 To determine the flatness of side 2, turn the specimen over and allow gravity to determine the specimen's position on the surface. Repeat section 5.2.5.4 to determine the flatness of side 2.

5.2.5.6 To determine the parallelism of the specimen for side 1, calculate the theoretical height of the least squares plane at the furthest corners (*i.e.,* at points (0,0), (0,12), (12,0), and (12,12)) of the 12-inch by 12-inch test specimen. The difference between the maximum theoretical height and the minimum theoretical height shall be less than or equal to 0.03 inches for each side in order for side 1 to be considered parallel.

5.2.5.7 To determine the parallelism of the specimen for side 2, repeat section

5.2.5.8 The average thickness of the test specimen, *L,* shall be 1 ± 0.1-inches determined using a minimum of 18 thickness measurements (*i.e.,* a minimum of 9 measurements on side 1 of the specimen and a minimum of 9 on side 2 of the specimen). This average thickness shall be used to determine the thermal conductivity, or K-factor.

5.3 *K-factor Test.* Determine the thermal conductivity, or K-factor, of the 1-inch-thick specimen in accordance with the specified sections of ASTM C518–17.

5.3.1 *Test Conditions.*

5.3.1.1 For freezer envelope components, the K-factor of the specimen shall be determined at an average specimen temperature of 20 ± 1 degrees Fahrenheit.

5.3.1.2 For cooler envelope components, the K-factor of the specimen shall be determined at an average specimen temperature of 55 ± 1 degrees Fahrenheit.

5.4 R-value Calculation.

5.4.1 For envelope components consisting of one homogeneous layer of insulation, calculate the R-value, h-ft²-°F/Btu, as follows:

$$R = \frac{t_{foam}}{\lambda} \qquad \text{(B-4)}$$

Where:

t_{foam} = the total thickness of the foam, in., as determined in section 5.2.4 of this appendix; and

λ = K-factor, Btu-in/(h-ft²-°F), as determined in section 5.3 of this appendix.

5.4.2 For envelope components consisting of two or more layers of dissimilar insulating materials (excluding facers or protective skins), determine the K-factor of each material as described in sections 5.1 through 5.3 of this appendix. For an envelope component with N layers of insulating material, the overall R-value shall be calculated as follows:

$$R = \sum_{i=1}^{N} \frac{t_i}{\lambda_i} \qquad \text{(B-5)}$$

Where:

t_i is the thickness of the ith material that appears in the envelope component, inches, as determined in section 5.2.4 of this appendix;

λ_i is the k-factor of the ith material, Btu-in/(h-ft²-°F), as determined in section 5.3 of this appendix; and

N is the total number of material layers that appears in the envelope component.

5.4.3 K-factor test results from a test sample 1 ± 0.1-inches in thickness may be used to determine the R-value of envelope components with various foam thicknesses as long as the foam throughout the panel depth is of the same final chemical form and the test was completed at the same test conditions that the other envelope components would be used at. For example, a K-factor test result conducted at cooler conditions cannot be used to determine R-value of a freezer envelope component.

■ 12. Amend appendix C to subpart R of part 431 by:

■ a. Adding an introductory note;

■ b. Revising sections 2.0 and 3.1.1;

■ c. Adding sections 3.1.6 and 3.1.7;

■ d. Revising sections 3.2.1 and 3.2.3;

■ e. Adding sections 3.2.6, 3.2.6.1, 3.2.6.1.1, 3.2.6.1.2, 3.2.6.2, 3.2.6.3, 3.2.6.4, 3.2.7, 3.2.7.1, 3.2.7.2, and 3.2.8;

■ f. Revising sections 3.3.1 and 3.3.3;

■ g. Adding sections 3.3.3.1, 3.3.3.2, 3.3.3.3, 3.3.3.3.1, and 3.3.3.3.2;

■ h. Revising sections 3.3.7, 3.3.7.1, and 3.3.7.2;

■ i. Adding sections 3.3.7.3, 3.3.7.3.1, and 3.3.7.3.2; and

■ j. Revising section 3.4.2.1.

The additions and revisions read as follows:

Appendix C to Subpart R of Part 431—Uniform Test Method for the Measurement of Net Capacity and AWEF of Walk-In Cooler and Walk-In Freezer Refrigeration Systems

Note: Prior to October 31, 2023, representations with respect to the energy use of refrigeration components of walk-in coolers and walk-in freezers, including compliance certifications, must be based on testing conducted in accordance with the applicable provisions of 10 CFR part 431, subpart R, appendix C, revised as of January 1, 2022. Beginning October 31, 2023, representations with respect to energy use of refrigeration components of walk-in coolers and walk-in freezers, including compliance certifications, must be based on testing conducted in accordance with this appendix.

For any amended standards for walk-in coolers and freezers published after January 1, 2022, manufacturers must use the results of testing under appendix C1 to this subpart to determine compliance. Representations related to energy consumption must be made in accordance with appendix C1 when determining compliance with the relevant standard. Manufacturers may also use appendix C1 to certify compliance with any amended standards prior to the applicable compliance date for those standards.

* * * * *

2.0 Definitions

The definitions contained in § 431.302 and AHRI 1250–2009 (incorporated by reference; see § 431.303) apply to this appendix. When definitions contained in the standards DOE has incorporated by reference are in conflict or when they conflict with this section, the

hierarchy of precedence shall be in the following order: § 431.302, AHRI 1250–2009, and then either AHRI 420–2008 (incorporated by reference; see § 431.303) for unit coolers or ASHRAE 23.1–2010 (incorporated by reference; see § 431.303) for dedicated condensing units.

The term ''unit cooler'' used in AHRI 1250–2009, AHRI 420–2008, and this subpart shall be considered to address both ''unit coolers'' and ''ducted fan coil units,'' as appropriate.

3.0 * * *

3.1. * * *

3.1.1. In Table 1, Instrumentation Accuracy, refrigerant temperature measurements shall have an accuracy of +/−0.5 °F for unit cooler in/out. When testing high-temperature refrigeration systems, measurements used to determine temperature or water vapor content of the air (*i.e.,* wet-bulb or dew point) shall be accurate to within +/−0.25 °F; all other temperature measurements shall be accurate to within +/−1.0 °F.

* * * * *

3.1.6. Test Operating Conditions for CO_2 Unit Coolers

For medium-temperature CO_2 unit coolers, conduct tests using the test conditions specified in table 17 of this appendix. For low-temperature CO_2 unit coolers, conduct tests using the test conditions specified in table 18 of this appendix.

TABLE 17—TEST OPERATING CONDITIONS FOR MEDIUM-TEMPERATURE CO_2 UNIT COOLERS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Suction dew point temp, °F	Liquid inlet bubble point temperature °F	Liquid inlet subcooling, °F	Compressor capacity	Test objective
Off-Cycle Power	35	<50	.....	.....	.....	Compressor On	Measure fan input power during compressor off-cycle.
Refrigeration Capacity, Ambient Condition A.	35	<50	25	38	5	Compressor Off	Determine Net Refrigeration Capacity of Unit Cooler.

Notes:
1. Superheat shall be set as indicated in the installation instructions. If no superheat specification is given a default superheat value of 6.5 °F shall be used.

TABLE 18—TEST OPERATING CONDITIONS FOR LOW-TEMPERATURE CO_2 UNIT COOLERS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Suction dew point temp, °F	Liquid inlet bubble point temperature °F	Liquid inlet subcooling, °F	Compressor capacity	Test objective
Off-Cycle Power	−10	<50	.....	.....	.....	Compressor Off	Measure fan input power during compressor off cycle.
Refrigeration Capacity, Ambient Condition A.	−10	<50	−20	38	5	Compressor On	Determine Net Refrigeration Capacity of Unit Cooler.
Defrost	−10	<50	.....	.....	.....	Compressor Off	Test according to Appendix C Section C11 of AHRI 1250–2009.

1. Superheat shall be set as indicated in the installation instructions. If no superheat specification is given a default superheat value of 6.5 °F shall be used.

3.1.7. Test Operating Conditions for High-Temperature Unit Coolers

For high-temperature cooler unit coolers, conduct tests using the test conditions specified in table 19 of this appendix.

TABLE 19—TEST OPERATING CONDITIONS FOR HIGH-TEMPERATURE UNIT COOLERS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %[1]	Suction dew point temp, °F[2 3]	Liquid inlet bubble point temperature °F	Liquid inlet subcooling, °F	Compressor capacity	Test objective
Off-Cycle	55	55	.....	105	9	Compressor Off	Measure fan input power.
Refrigeration Capacity Suction A	55	55	38	105	9	Compressor On	Determine Net Refrigeration Capacity of Unit Cooler.

Notes:
[1] The test condition tolerance (maximum permissible variation of the average value of the measurement from the specified test condition) for relative humidity is 3%.
[2] Superheat shall be set as indicated in the installation instructions. If no superheat specification is given a default superheat value of 6.5 °F shall be used.
[3] Suction Dew Point shall be measured at the Unit Cooler Exit.

3.2. * * *

3.2.1. Refrigerant Temperature Measurements

In AHRI 1250–2009 appendix C, section C3.1.6, any refrigerant temperature measurements entering and leaving the unit cooler may use sheathed sensors immersed in the flowing refrigerant instead of thermometer wells. When testing a condensing unit alone, measure refrigerant liquid temperature leaving the condensing unit using thermometer wells as described in AHRI 1250–2009 appendix C, section C3.1.6 or sheathed sensors immersed in the flowing refrigerant. For all of these cases, if the refrigerant tube outer diameter is less than ½ inch, the refrigerant temperature may be measured using the average of two

temperature measuring instruments with a minimum accuracy of ±0.5 °F placed on opposite sides of the refrigerant tube surface—resulting in a total of up to 8 temperature measurement devices used for the DX Dual Instrumentation method. In this case, the refrigerant tube shall be insulated with 1-inch thick insulation from a point 6 inches upstream of the measurement location to a point 6 inches downstream of the measurement location. Also, to comply with this requirement, the unit cooler entering measurement location may be moved to a location 6 inches upstream of the expansion device and, when testing a condensing unit alone, the entering and leaving measurement locations may be moved to locations 6 inches from the respective service valves.

* * * * *

3.2.3. Subcooling at Refrigerant Mass Flow Meter

In appendix C, section C3.4.5 of AHRI 1250–2009 (incorporated by reference; see § 431.303), and in section 7.1.2 of ASHRAE 23.1–2010 (incorporated by reference; see § 431.303) when verifying subcooling at the mass flow meters, only the sight glass and a temperature sensor located on the tube surface under the insulation are required. Subcooling shall be verified to be within the 3 °F requirement downstream of flow meters located in the same chamber as a condensing unit under test and upstream of flow meters located in the same chamber as a unit cooler under test, rather than always downstream as indicated in AHRI 1250–2009, section C3.4.5 or always upstream as indicated in section 7.1.2 of ASHRAE 23.1–2010. If the subcooling is less than 3 °F, cool the line between the condensing unit outlet and this location to achieve the required subcooling. When providing such cooling while testing a matched pair, (a) set up the line-cooling system and also set up apparatus to heat the liquid line between the mass flow meters and the unit cooler, (b) when the system has achieved steady state without activation of the heating and cooling systems, measure the liquid temperature entering the expansion valve for a period of at least 30 minutes, (c) activate the cooling system to provide the required subcooling at the mass flow meters, (d) if necessary, apply heat such that the temperature entering the expansion valve is within 0.5 ºF of the temperature measured during step (b), and (e) proceed with measurements once condition (d) has been verified.

* * * * *

3.2.6. Installation Instructions

Manufacturer installation instructions refer to the instructions that are applied to the unit (*i.e.,* as a label) or that come packaged with the unit. Online installation instructions are acceptable only if the version number or date of publication is referenced on the unit label or in the documents that are packaged with the unit.

3.2.6.1 *Installation Instruction Hierarchy when available installation instructions are in conflict*

3.2.6.1.1 If a manufacturer installation instruction provided on the label(s) applied to the unit conflicts with the manufacturer installation instructions that are shipped with the unit, the instructions on the unit's label take precedence.

3.2.6.1.2 Manufacturer installation instructions provided in any documents that are packaged with the unit take precedence over any manufacturer installation instructions provided online.

3.2.6.2 For testing of attached split systems, the manufacturer installation instructions for the dedicated condensing unit shall take precedence over the manufacturer installation instructions for the unit cooler.

3.2.6.3 Unit setup shall be in accordance with the manufacturer installation instructions (laboratory installation instructions shall not be used).

3.2.6.4 Achieving test conditions shall always take precedence over installation instructions.

3.2.7. *Refrigerant Charging and Adjustment of Superheat and Subcooling.*

All dedicated condensing systems (dedicated condensing units tested alone, matched pairs, and single packaged dedicated systems) that use flooding of the condenser for head pressure control during low-ambient-temperature conditions shall be charged, and superheat and/or subcooling shall be set, at Refrigeration C test conditions unless otherwise specified in the installation instructions.

If after being charged at Refrigeration C condition the unit under test does not operate at the Refrigeration A condition due to high pressure cut out, refrigerant shall be removed in increments of 4 ounces or 5 percent of the test unit's receiver capacity, whichever quantity is larger, until the unit operates at the Refrigeration A condition. All tests shall be run at this final refrigerant charge. If less than 0 °F of subcooling is measured for the refrigerant leaving the condensing unit when testing at B or C condition, calculate the refrigerant-enthalpy-based capacity (*i.e.,* when using the DX dual instrumentation, the DX calibrated box, or single-packaged unit refrigerant enthalpy method) assuming that the refrigerant is at saturated liquid conditions at the condensing unit exit.

All dedicated condensing systems that do not use a flooded condenser design shall be charged at Refrigeration A test conditions unless otherwise specified in the installation instructions.

If the installation instructions give a specified range for superheat, sub-cooling, or refrigerant pressure, the average of the range shall be used as the refrigerant charging parameter target and the test condition tolerance shall be ±50 percent of the range. Perform charging of near-azeotropic and zeotropic refrigerants only with refrigerant in the liquid state. Once the correct refrigerant charge is determined, all tests shall run until completion without further modification.

3.2.7.1. When charging or adjusting superheat/subcooling, use all pertinent instructions contained in the installation instructions to achieve charging parameters within the tolerances. However, in the event of conflicting charging information between installation instructions, follow the installation instruction hierarchy listed in section 3.2.6. of this appendix. Conflicting information is defined as multiple conditions given for charge adjustment where all conditions specified cannot be met. In the event of conflicting information within the same set of charging instructions (*e.g.,* the installation instructions shipped with the dedicated condensing unit), follow the hierarchy in table 1 of this section for priority. Unless the installation instructions specify a different charging tolerance, the tolerances identified in table 1 of this section shall be used.

TABLE 1—TEST CONDITION TOLERANCES AND HIERARCHY FOR REFRIGERANT CHARGING AND SETTING OF REFRIGERANT CONDITIONS

Priority	Fixed orifice		Expansion valve	
	Parameter with installation instruction target	Tolerance	Parameter with installation instruction target	Tolerance
1	Superheat	±2.0 °F	Subcooling	10% of the Target Value; No less than ±0.5 °F, No more than ±2.0 °F.
2	High Side Pressure or Saturation Temperature.	±4.0 psi or ±1.0 °F	High Side Pressure or Saturation Temperature.	±4.0 psi or ±1.0 °F.
3	Low Side Pressure or Saturation Temperature.	±2.0 psi or ±0.8 °F	Superheat	±2.0 °F.
4	Low Side Temperature	±2.0 °F	Low Side Pressure or Saturation Temperature.	±2.0 psi or ±0.8 °F.
5	High Side Temperature	±2.0 °F	Approach Temperature	±1.0 °F.

TABLE 1—TEST CONDITION TOLERANCES AND HIERARCHY FOR REFRIGERANT CHARGING AND SETTING OF REFRIGERANT CONDITIONS—Continued

Priority	Fixed orifice		Expansion valve	
	Parameter with installation instruction target	Tolerance	Parameter with installation instruction target	Tolerance
6	Charge Weight	±2.0 oz	Charge Weight	0.5% or 1.0 oz, whichever is greater.

3.2.7.2. *Dedicated Condensing Unit.* If the Dedicated Condensing Unit includes a receiver and the subcooling target leaving the condensing unit provided in installation instructions cannot be met without fully filling the receiver, the subcooling target shall be ignored. Likewise, if the Dedicated Condensing unit does not include a receiver and the subcooling target leaving the condensing unit cannot be met without the unit cycling off on high pressure, the subcooling target can be ignored. Also, if no instructions for charging or for setting subcooling leaving the condensing unit are provided in the installation instructions, the refrigeration system shall be set up with a charge quantity and/or exit subcooling such that the unit operates during testing without shutdown (*e.g.,* on a high-pressure switch) and operation of the unit is otherwise consistent with the requirements of the test procedure of this appendix and the installation instructions.

3.2.8. *Chamber Conditioning using the Unit Under Test.*

In appendix C, section C6.2 of AHRI 1250–2009, for applicable system configurations (matched pairs, single-packaged refrigeration systems, and standalone unit coolers), the unit under test may be used to aid in achieving the required test chamber conditions prior to beginning any steady state test. However, the unit under test must be inspected and confirmed to be free from frost before initiating steady state testing.

* * * * *

3.3. * * *

3.3.1. For unit coolers tested alone, use test procedures described in AHRI 1250–2009 for testing unit coolers for use in mix-match system ratings, except that for the test conditions in tables 15 and 16 of this appendix, use the Suction A saturation condition test points only. Also, for unit coolers tested alone, other than high-temperature unit coolers, use the calculations in section 7.9 of AHRI 1250–2009 to determine AWEF and net capacity described in AHRI 1250–2009 for unit coolers matched to parallel rack systems.

* * * * *

3.3.3. *Evaporator Fan Power.*

3.3.3.1. *Ducted Evaporator Air.*

For ducted fan coil units with ducted evaporator air, or that can be installed with or without ducted evaporator air: Connect ductwork on both the inlet and outlet connections and determine external static pressure as described in ASHRAE 37 (incorporated by reference; see § 431.303), sections 6.4 and 6.5. Use pressure measurement instrumentation as described in ASHRAE 37, section 5.3.2. Test at the fan speed specified in manufacturer installation instructions—if there is more than one fan speed setting and the installation instructions do not specify which speed to use, test at the highest speed. Conduct tests with the external static pressure equal to 50 percent of the maximum external static pressure allowed by the manufacturer for system installation within a tolerance of −0.00/+0.05 in. wc. Set the external static pressure by symmetrically restricting the outlet of the test duct. Alternatively, if using the indoor air enthalpy method to measure capacity, set external static pressure by adjusting the fan of the airflow measurement apparatus. In case of conflict, these requirements for setting evaporator airflow take precedence over airflow values specified in manufacturer installation instructions or product literature.

3.3.3.2. *Unit Coolers or Single-Packaged Systems that are not High-Temperature Refrigeration Systems.*

Use appendix C, section C10 of AHRI 1250–2009 for off-cycle evaporator fan testing, with the exception that evaporator fan controls using periodic stir cycles shall be adjusted so that the greater of a 50 percent duty cycle (rather than a 25 percent duty cycle) or the manufacturer default is used for measuring off-cycle fan energy. For adjustable-speed controls, the greater of 50 percent fan speed (rather than 25 percent fan speed) or the manufacturer's default fan speed shall be used for measuring off-cycle fan energy. Also, a two-speed or multi-speed fan control may be used as the qualifying evaporator fan control. For such a control, a fan speed no less than 50 percent of the speed used in the maximum capacity tests shall be used for measuring off-cycle fan energy.

3.3.3.3. *High-Temperature Refrigeration Systems.*

3.3.3.3.1. The evaporator fan power consumption shall be measured in accordance with the requirements in section C3.5 of AHRI 1250–2009. This measurement shall be made with the fan operating at full speed, either measuring unit cooler or total system power input upon the completion of the steady state test when the compressor and the condenser fan of the walk-in system are turned off, or by submetered measurement of the evaporator fan power during the steady state test.

Section C3.5 of AHRI 1250–2009 is revised to read:

Evaporator Fan Power Measurement.

The following shall be measured and recorded during a fan power test.

$EF_{comp,on}$ Total electrical power input to fan motor(s) of Unit Cooler, W
FS Fan speed(s), rpm
N Number of motors
P_b Barometric pressure, in. Hg
T_{db} Dry-bulb temperature of air at inlet, °F
T_{wb} Wet-bulb temperature of air at inlet, °F
V Voltage of each phase

For a given motor winding configuration, the total power input shall be measured at the highest nameplate voltage. For three-phase power, voltage imbalance shall be no more than 2%.

3.3.3.3.2. Evaporator fan power for the off-cycle is equal to the on-cycle evaporator fan power with a run time of 10 percent of the off-cycle time.

$$EF_{comp,off} = 0.1 \times EF_{comp,on}$$

* * * * *

3.3.7. *Calculations for Unit Coolers Tested Alone.*

3.3.7.1. *Unit Coolers that are not High-Temperature Unit Coolers.*

Calculate the AWEF and net capacity using the calculations in AHRI 1250–2009, section 7.9.

3.3.7.2 *High-Temperature Unit Coolers.*

Calculate AWEF on the basis that walk-in box load is equal to half of the system net capacity, without variation according to high and low load periods, and with EER set according to tested evaporator capacity, as follows:

The net capacity, $\dot{q}_{mix,evap}$, is determined from the test data for the unit cooler at the 38 °F suction dewpoint.

$$\dot{BL} = 0.5 \times \dot{q}_{mix,evap}$$

$$\dot{E}_{mix,rack} = \frac{\left(\dot{q}_{mix,evap} + 3.412 \times \dot{EF}_{comp,on}\right)}{EER} + \dot{EF}_{comp,on}$$

Where:

$$EER = \begin{cases} 11 & if\ \dot{q}_{mix,evap} < 10{,}000\ Btu/h \\ 0.0007 \times \dot{q}_{mix,evap} + 4 & if\ 10{,}000 \leq \dot{q}_{mix,evap} < 20{,}000\ Btu/h \\ 18 & if\ 20{,}000 \leq \dot{q}_{mix,evap} < 36{,}000\ Btu/h \end{cases}$$

$$LF = \frac{\dot{BL} + 3.412 \times \dot{EF}_{comp,off}}{\dot{q}_{mix,evap} + 3.412 \times \dot{EF}_{comp,off}}$$

$$AWEF = \frac{\dot{BL}}{\dot{E}_{mix,rack} \times LF + \dot{EF}_{comp,off} \times (1 - LF)}$$

Where:

$\dot{BL}$ is the non-equipment-related box load;
LF is the load factor; and
Other symbols are as defined in section 8 of AHRI 1250–2009.

3.3.7.3. If the unit cooler has variable-speed evaporator fans that vary fan speed in response to load, then:

3.3.7.3.1. When testing to certify compliance with the energy conservation standards in § 431.306, fans shall operate at full speed during on-cycle operation. Do not conduct the calculations in AHRI 1250–2009, section 7.9.3. Instead, use AHRI 1250–2009, section 7.9.2 to determine the system's AWEF.

3.3.7.3.2. When calculating the benefit for the inclusion of variable-speed evaporator fans that modulate fan speed in response to load for the purpose of making representations of efficiency, use AHRI 1250–2009, section 7.9.3 to determine the system AWEF.

3.4. * * *

3.4.2. * * *

3.4.2.1. For calculating enthalpy leaving the unit cooler to calculate gross capacity, (a) the saturated refrigerant temperature (dew point) at the unit cooler coil exit, T_{evap}, shall be 25 °F for medium-temperature systems (coolers) and −20 °F for low-temperature systems (freezers), and (b) the refrigerant temperature at the unit cooler exit shall be 35 °F for medium-temperature systems (coolers) and −14 °F for low-temperature systems (freezers). For calculating gross capacity, the measured enthalpy at the condensing unit exit shall be used as the enthalpy entering the unit cooler. The temperature measurement requirements of appendix C, section C3.1.6 of AHRI 1250–2009 and modified by section 3.2.1 of this appendix shall apply only to the condensing unit exit rather than to the unit cooler inlet and outlet, and they shall be applied for two measurements when using the DX Dual Instrumentation test method.

* * * * *

■ 13. Add appendix C1 to subpart R of part 431 to read as follows:

Appendix C1 to Subpart R of Part 431—Uniform Test Method for the Measurement of Net Capacity and AWEF2 of Walk-In Cooler and Walk-In Freezer Refrigeration Systems

Note: Prior to October 31, 2023, representations with respect to the energy use of refrigeration components of walk-in coolers and walk-in freezers, including compliance certifications, must be based on testing conducted in accordance with the applicable provisions for 10 CFR part 431, subpart R, appendix C, revised as of January 1, 2022. Beginning October 31, 2023, representations with respect to energy use of refrigeration components of walk-in coolers and walk-in freezers, including compliance certifications, must be based on testing conducted in accordance with appendix C to this subpart.

For any amended standards for walk-in coolers and walk-in freezers published after January 1, 2022, manufacturers must use the results of testing under this appendix to determine compliance. Representations related to energy consumption must be made in accordance with this appendix when determining compliance with the relevant standard. Manufacturers may also use this appendix to certify compliance with any amended standards prior to the applicable compliance date for those standards.

0. Incorporation by Reference

DOE incorporated by reference in § 431.303, the entire standard for AHRI 1250–2020, ANSI/ASHRAE 16, ANSI/ASHRAE 23.1–2010, ANSI/ASHRAE 37, ANSI/ASHRAE 41.1, ANSI/ASHRAE 41.3, ANSI/ASHRAE 41.6, and ANSI/ASHRAE 41.10. However, certain enumerated provisions of these standards, as set forth in sections 0.1 through 0.8 of this appendix are inapplicable. To the extent there is a conflict between the terms or provisions of a referenced industry standard and the CFR, the CFR provisions control. To the extent there is a conflict between the terms or provisions of AHRI 1250–2020, ANSI/ASHRAE 16, ANSI/ASHRAE 23.1–2010, ANSI/ASHRAE 37, ANSI/ASHRAE 41.1, ANSI/ASHRAE 41.3, ANSI/ASHRAE 41.6, and ANSI/ASHRAE 41.10, the AHRI 1250–2020 provisions control.

0.1 AHRI 1250–2020

(a) Section 1 Purpose, is inapplicable
(b) Section 2 Scope, is inapplicable
(c) Section 9 Minimum Data Requirements for Published Rating, is inapplicable
(d) Section 10 Marking and Nameplate Data, is inapplicable

(e) Section 11 Conformance Conditions, is inapplicable

0.2 ANSI/ASHRAE 16

(a) Section 1 Purpose, is inapplicable
(b) Section 2 Scope, is inapplicable
(c) Section 4 Classifications, is inapplicable
(d) Normative Appendices E–M, are inapplicable
(e) Informative Appendices N–R, are inapplicable

0.3 ANSI/ASHRAE 23.1–2010

(a) Section 1 Purpose, is inapplicable
(b) Section 2 Scope, is inapplicable
(c) Section 4 Classifications, is inapplicable

0.4 ANSI/ASHRAE 37

(a) Section 1 Purpose, is inapplicable
(b) Section 2 Scope, is inapplicable
(c) Section 4 Classifications, is inapplicable
(d) Informative Appendix A Classifications of Unitary Air-conditioners and Heat Pumps, is inapplicable.

0.5 ANSI/ASHRAE 41.1

(a) Section 1 Purpose, is inapplicable
(b) Section 2 Scope, is inapplicable
(c) Section 4 Classifications, is inapplicable
(d) Section 9 Test Report, is inapplicable
(e) Informative Appendices A–C, are inapplicable

0.6 ANSI/ASHRAE 41.3

(a) Section 1 Purpose, is inapplicable
(b) Section 2 Scope, is inapplicable
(c) Section 4 Classifications, is inapplicable
(d) Section 6 Instrument Types (informative), is inapplicable
(e) Section 8 Test Report, is inapplicable
(f) Informative Annexes A–D, are inapplicable

0.7 ANSI/ASHRAE 41.6

(a) Section 1 Purpose, is inapplicable
(b) Section 2 Scope, is inapplicable
(c) Section 4 Classifications, is inapplicable
(d) Section 9 Test Report, is inapplicable
(e) Informative Appendices A–D, are inapplicable

0.8 ANSI/ASHRAE 41.10

(a) Section 1 Purpose, is inapplicable
(b) Section 2 Scope, is inapplicable
(c) Section 4 Classifications, is inapplicable
(d) Section 10 Test Report, is inapplicable
(e) Informative Annexes A–D, are inapplicable

1. Scope

This appendix covers the test requirements used to determine the net capacity and the AWEF2 of the refrigeration system of a walk-in cooler or walk-in freezer.

2. Definitions

2.1. Applicable Definitions

The definitions contained in § 431.302, AHRI 1250–2020, ANSI/ASHRAE 37, and ANSI/ASHRAE 16 apply to this appendix. When definitions in standards incorporated by reference are in conflict or when they conflict with this section, the hierarchy of precedence shall be in the following order: § 431.302, AHRI 1250–2020, and then either ANSI/ASHRAE 37 or ANSI/ASHRAE 16.

The term ''unit cooler'' used in AHRI 1250–2020 and this subpart shall be considered to address both ''unit coolers'' and ''ducted fan coil units,'' as appropriate.

2.2. Additional Definitions

2.2.1. *Digital Compressor* means a compressor that uses mechanical means for disengaging active compression on a cyclic basis to provide a reduced average refrigerant flow rate in response to a control system input signal.

2.2.2. *Displacement Ratio,* applicable to staged positive displacement compressor systems, means the swept volume rate, *e.g.* in cubic centimeters per second, of a given stage, divided by the swept volume rate at full capacity.

2.2.3. *Duty Cycle,* applicable to digital compressors, means the fraction of time that the compressor is engaged and actively compressing refrigerant.

2.2.4. *Maximum Speed,* applicable to variable-speed compressors, means the maximum speed at which the compressor will operate under the control of the dedicated condensing system control system for extended periods of time, *i.e.* not including short-duration boost-mode operation.

2.2.5. *Minimum Speed,* applicable to variable-speed compressors, means the minimum compressor speed at which the compressor will operate under the control of the dedicated condensing system control system.

2.2.6. *Multiple-Capacity,* applicable for describing a refrigeration system, indicates that it has three or more stages (levels) of capacity.

2.2.7. *Speed Ratio,* applicable to variable-speed compressors, means the ratio of operating speed to the maximum speed.

3. Test Methods, Measurements, and Calculations

Determine the Annual Walk-in Energy Factor (AWEF2) and net capacity of walk-in cooler and walk-in freezer refrigeration systems by conducting the test procedure set forth in AHRI 1250–2020, with the modifications to that test procedure provided in this section. However, certain sections of AHRI 1250–2020, ANSI/ASHRAE 37, and ANSI/ASHRAE 16 are not applicable, as set forth in sections 0.1, 0.2, and 0.3 of this appendix. Round AWEF2 measurements to the nearest 0.01 Btu/Wh. Round net capacity measurements as indicated in table 1 of this appendix.

TABLE 1—ROUNDING OF REFRIGERATION SYSTEM NET CAPACITY

Net capacity range, Btu/h	Rounding multiple, Btu/h
<20,000	100
≥20,000 and <38,000	200
≥38,000 and <65,000	500
≥65,000	1,000

The following sections of this appendix provide additional instructions for testing. In cases where there is a conflict, the language of this appendix takes highest precedence, followed by AHRI 1250–2020, then ANSI/ASHRAE 37 or ANSI/ASHRAE 16. Any subsequent amendment to a referenced document by the standard-setting organization will not affect the test procedure in this appendix, unless and until the test procedure is amended by DOE. Material is incorporated as it exists on the date of the approval, and a notification of any change in the incorporation will be published in the **Federal Register**.

3.1. Instrumentation Accuracy and Test Tolerances

Use measuring instruments as described in section 4.1 of AHRI 1250–2020, with the following additional requirement.

3.1.1. Electrical Energy Input measured in Wh with a minimum accuracy of ±0.5% of reading (for Off-Cycle tests per footnote 5 of Table C3 in section C3.6.2 of AHRI 1250–2020).

3.2. Test Operating Conditions

Test conditions used to determine AWEF2 shall be as specified in Tables 4 through 17 of AHRI 1250–2020. Tables 7 and 11 of AHRI 1250–2020, labeled to apply to variable-speed outdoor matched-pair refrigeration systems, shall also be used for testing variable-capacity single-packaged outdoor refrigeration systems, and also for testing multiple-capacity matched-pair or single-packaged outdoor refrigeration systems. Test conditions used to determine AWEF2 for refrigeration systems not specifically identified in AHRI 1250–2020 are as enumerated in sections 3.5.1 through 3.5.6 of this appendix.

3.2.1 Test Operating Conditions for High-Temperature Refrigeration Systems

For fixed-capacity high-temperature matched-pair or single-packaged refrigeration systems with indoor condensing units, conduct tests using the test conditions specified in table 2 of this appendix. For fixed-capacity high-temperature matched-pair or single-packaged refrigeration systems with outdoor condensing units, conduct tests using the test conditions specified in table 3 of this appendix. For high-temperature unit coolers tested alone, conduct tests using the test conditions specified in table 4 of this appendix.

TABLE 2—TEST OPERATING CONDITIONS FOR FIXED-CAPACITY HIGH-TEMPERATURE INDOOR MATCHED PAIR OR SINGLE-PACKAGED REFRIGERATION SYSTEMS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, % [1]	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F	Compressor status	Test objective
Off-Cycle Power	55	55			Compressor Off	Measure total input wattage during compressor off-cycle, ($\dot{E}_{cu,off}$ + $\dot{E}F_{comp,off}$).[2]
Refrigeration Capacity A	55	55	90	[3] 75, [4] 65	Compressor On	Determine Net Refrigeration Capacity of Unit Cooler, input power, and EER at Test Condition.

Notes:
[1] The test condition tolerance (maximum permissible variation of the average value of the measurement from the specified test condition) for relative humidity is 3%.
[2] Measure off-cycle power as described in sections C3 and C4.2 of AHRI 1250–2020.
[3] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).
[4] Maximum allowable value for Single-Packaged Systems that do not use evaporative Dedicated Condensing Units, where all or part of the equipment is located in the outdoor room.

TABLE 3—TEST OPERATING CONDITIONS FOR FIXED-CAPACITY HIGH-TEMPERATURE OUTDOOR MATCHED-PAIR OR SINGLE-PACKAGED REFRIGERATION SYSTEMS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, % [1]	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F	Compressor status	Test objective
Refrigeration Capacity A	55	55	95	[3] 75, [4] 68	Compressor On	Determine Net Refrigeration Capacity of Unit Cooler, input power, and EER at Test Condition.
Off-Cycle Power, Capacity A [5]	55	55	95	[3] 75, [4] 68	Compressor Off	Measure total input wattage during compressor off-cycle, ($\dot{E}_{cu,off}$ + $\dot{E}F_{comp,off}$).[2]
Refrigeration Capacity B	55	55	59	[3] 54, [4] 46	Compressor On	Determine Net Refrigeration Capacity of Unit Cooler and system input power at moderate condition.
Off-Cycle Power, Capacity B [5]	55	55	59	[3] 54, [4] 46	Compressor Off	Measure total input wattage during compressor off-cycle, ($\dot{E}_{cu,off}$ + $\dot{E}F_{comp,off}$).[2]
Refrigeration Capacity C	55	55	35	[3] 34, [4] 29	Compressor On	Determine Net Refrigeration Capacity of Unit Cooler and system input power at cold condition.
Off-Cycle Power, Capacity C [5]	55	55	35	[3] 34, [4] 29	Compressor Off	Measure total input wattage during compressor off-cycle, ($\dot{E}_{cu,off}$ + $\dot{E}F_{comp,off}$).[2]

Notes:
[1] The test condition tolerance (maximum permissible variation of the average value of the measurement from the specified test condition) for relative humidity is 3%.
[2] Measure off-cycle power as described in sections C3 and C4.2 of AHRI 1250–2020.
[3] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).
[4] Maximum allowable value for Single-Packaged Systems that do not use evaporative Dedicated Condensing Units, where all or part of the equipment is located in the outdoor room.

TABLE 4—TEST OPERATING CONDITIONS FOR HIGH-TEMPERATURE UNIT COOLERS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, % [1]	Suction dew point temp, °F [3 4]	Liquid inlet bubble point temperature, °F	Liquid inlet subcooling, °F	Compressor status	Test objective
Off-Cycle	55	55		105	9	Compressor Off	Measure unit cooler input wattage during compressor off-cycle, $\dot{E}F_{comp,off}$.[2]
Refrigeration Capacity	55	55	38	105	9	Compressor On	Determine Net Refrigeration Capacity of Unit Cooler, input power, and EER at Test Condition.

Notes:
[1] The test condition tolerance (maximum permissible variation of the average value of the measurement from the specified test condition) for relative humidity is 3%.
[2] Measure off-cycle power as described in sections C3 and C4.2 of AHRI 1250–2020.
[3] Superheat shall be set as indicated in the installation instructions. If no superheat specification is given a default superheat value of 6.5 °F shall be used.
[4] Suction Dew Point shall be measured at the Unit Cooler Exit.

3.2.2 Test Operating Conditions for CO_2 Unit Coolers

For medium-temperature CO_2 Unit Coolers, conduct tests using the test conditions specified in table 5 of this appendix. For low-temperature CO_2 Unit Coolers, conduct tests using the test conditions specified in table 6 of this appendix.

TABLE 5—TEST OPERATING CONDITIONS FOR MEDIUM-TEMPERATURE CO_2 UNIT COOLERS

Test title	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Suction dew point temp,[3] °F	Liquid inlet bubble point temperature, °F	Liquid inlet subcooling, °F	Compressor operating mode	Test objective
Off-Cycle Power	35	<50				Compressor On	Measure unit cooler input wattage during compressor off-cycle, $\dot{E}F_{comp,off}$.[2]

TABLE 5—TEST OPERATING CONDITIONS FOR MEDIUM-TEMPERATURE CO_2 UNIT COOLERS—Continued

Test title	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Suction dew point temp,[3] °F	Liquid inlet bubble point temperature, °F	Liquid inlet subcooling, °F	Compressor operating mode	Test objective
Refrigeration Capacity, Ambient Condition A.	35	<50	25	38	5	Compressor Off ...	Determine Net Refrigeration Capacity of Unit Cooler, $\dot{q}_{mix,rack}$.

Notes:
[1] Superheat shall be set as indicated in the installation instructions. If no superheat specification is given a default superheat value of 6.5 °F shall be used.
[2] Measure off-cycle power as described in sections C3 and C4.2 of AHRI 1250–2020.
[3] Suction Dew Point shall be measured at the Unit Cooler Exit conditions.

TABLE 6—TEST OPERATING CONDITIONS FOR LOW-TEMPERATURE CO_2 UNIT COOLERS

Test title	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Suction dew point temp,[2] °F	Liquid inlet bubble point temperature, °F	Liquid inlet subcooling, °F	Compressor operating mode	Test objective
Off-Cycle Power	−10	<50	.....	.....	.....	Compressor Off ...	Measure unit cooler input wattage during compressor off-cycle, $\dot{E}F_{comp,off}$.[2]
Refrigeration Capacity, Ambient Condition A.	−10	<50	−20	38	5	Compressor On ...	Determine Net Refrigeration Capacity of Unit Cooler, $\dot{q}_{mix,rack}$.
Defrost	−10	<50	.....	.....	.....	Compressor Off ...	Test according to Appendix C Section C10 of AHRI 1250–2020, $\dot{D}F,\dot{Q}_{DF}$.

Notes:
[1] Superheat shall be set as indicated in the installation instructions. If no superheat specification is given a default superheat value of 6.5 °F shall be used.
[2] Measure off-cycle power as described in sections C3 and C4.2 of AHRI 1250–2020.
[3] Suction Dew Point shall be measured at the Unit Cooler Exit conditions.

3.2.3 Test Operating Conditions for Two-Capacity Condensing Units Tested Alone

For two-capacity medium-temperature outdoor condensing units tested alone, conduct tests using the test conditions specified in table 7 of this appendix. For two-capacity medium-temperature indoor condensing units tested alone, conduct tests using the test conditions specified in table 8 of this appendix. For two-capacity low-temperature outdoor condensing units tested alone, conduct tests using the test conditions specified in table 9 of this appendix. For two-capacity low-temperature indoor condensing units tested alone, conduct tests using the test conditions specified in table 10 of this appendix.

TABLE 7—TEST OPERATING CONDITIONS FOR TWO-CAPACITY MEDIUM-TEMPERATURE OUTDOOR DEDICATED CONDENSING UNITS

Test description	Suction dew point, °F	Return gas, °F	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F[1]	Compressor status
Capacity, Condition A, Low Capacity	24	41	95	75	Low Capacity, k=1.
Capacity, Condition A, High Capacity	23	41	95	75	High Capacity, k=2.
Off-Cycle, Condition A	.....	.....	95	75	Off.
Capacity, Condition B, Low Capacity	24	41	59	54	Low Capacity, k=1.
Capacity, Condition B, High Capacity	23	.....	59	54	High Capacity, k=2.
Off-Cycle, Condition B	.....	.....	59	54	Off.
Capacity, Condition C, Low Capacity	24	41	35	34	Low Capacity, k=1.
Capacity, Condition C, High Capacity	23	41	35	34	High Capacity, k=2.
Off-Cycle, Condition C	.....	.....	35	34	Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).

TABLE 8—TEST OPERATING CONDITIONS FOR TWO-CAPACITY MEDIUM-TEMPERATURE INDOOR DEDICATED CONDENSING UNITS

Test description	Suction dew point, °F	Return gas, °F	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F[1]	Compressor status
Capacity, Condition A, Low Capacity	24	41	90	75	Low Capacity, k=1.
Capacity, Condition A, High Capacity	23	41	90	75	High Capacity, k=2.
Off-Cycle, Condition A	.....	.....	90	75	Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).

TABLE 9—TEST OPERATING CONDITIONS FOR TWO-CAPACITY LOW-TEMPERATURE OUTDOOR DEDICATED CONDENSING UNITS

Test title	Suction dew point, °F	Return gas, °F	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F [1]	Compressor operating mode
Capacity, Condition A, Low Capacity	−22	5	95	75	Low Capacity, k=1.
Capacity, Condition A, High Capacity	−22	5	95	75	High Capacity, k=2.
Off-Cycle, Condition A	.....	.....	95	75	Compressor Off.
Capacity, Condition B, Low Capacity	−22	5	59	54	Low Capacity, k=1.
Capacity, Condition B, High Capacity	−22	5	59	54	High Capacity, k=2.
Off-Cycle, Condition B	.....	.....	59	54	Compressor Off.
Capacity, Condition C, Low Capacity	−22	5	35	34	Low Capacity, k=1.
Capacity, Condition C, High Capacity.	−22	5	35	34	Maximum Capacity, k=2.
Off-Cycle, Condition C	.....	.....	35	34	Compressor Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).

TABLE 10—TEST OPERATING CONDITIONS FOR TWO-CAPACITY LOW-TEMPERATURE INDOOR DEDICATED CONDENSING UNITS

Test title	Suction dew point, °F	Return gas, °F	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F [1]	Compressor operating mode
Capacity, Condition A, Low Capacity	−22	5	90	75	Low Capacity, k=1.
Capacity, Condition A, High Capacity	−22	5	90	75	High Capacity, k=2.
Off-Cycle, Condition A	.....	.....	90	75	Compressor Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).

3.2.4 Test Operating Conditions for Variable- or Multiple-Capacity Condensing Units Tested Alone

For variable-capacity or multiple-capacity outdoor medium-temperature condensing units tested alone, conduct tests using the test conditions specified in table 11 of this appendix. For variable-capacity or multiple-capacity indoor medium-temperature condensing units tested alone, conduct tests using the test conditions specified in table 12 of this appendix. For variable-capacity or multiple-capacity outdoor low-temperature condensing units tested alone, conduct tests using the test conditions specified in table 13 of this appendix. For variable-capacity or multiple-capacity indoor low-temperature condensing units tested alone, conduct tests using the test conditions specified in table 14 of this appendix.

TABLE 11—TEST OPERATING CONDITIONS FOR VARIABLE- OR MULTIPLE-CAPACITY MEDIUM-TEMPERATURE OUTDOOR DEDICATED CONDENSING UNITS

Test description	Suction dew point, °F	Return gas, °F	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F [1]	Compressor status
Capacity, Condition A, Minimum Capacity.	24	41	95	75	Minimum Capacity, k=1.
Capacity, Condition A, Intermediate Capacity.	24	41	95	75	Intermediate Capacity, k=i.
Capacity, Condition A, Maximum Capacity.	23	41	95	75	Maximum Capacity, k=2
Off-Cycle, Condition A	.....	.....	95	75	Off.
Capacity, Condition B, Minimum Capacity.	24	41	59	54	Minimum Capacity, k=1.
Capacity, Condition B, Intermediate Capacity.	24	41	59	54	Intermediate Capacity, k=i.
Capacity, Condition B, Maximum Capacity.	23	41	59	54	Maximum Capacity, k=2.
Off-Cycle, Condition B	.....	.....	59	54	Off.
Capacity, Condition C, Minimum Capacity.	24	41	35	34	Minimum Capacity, k=1.
Capacity, Condition C, Intermediate Capacity.	24	41	35	34	Intermediate Capacity, k=i.
Capacity, Condition C, Maximum Capacity.	23	41	35	34	Maximum Capacity, k=2.
Off-Cycle, Condition C	.....	.....	35	34	Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).

TABLE 12—TEST OPERATING CONDITIONS FOR VARIABLE- OR MULTIPLE-CAPACITY MEDIUM-TEMPERATURE INDOOR DEDICATED CONDENSING UNITS

Test description	Suction dew point, °F	Return gas, °F	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F [1]	Compressor status
Capacity, Condition A, Minimum Capacity.	24	41	90	75	Minimum Capacity, k=1.
Capacity, Condition A, Intermediate Capacity.	24	41	90	75	Intermediate Capacity, k=i.
Capacity, Condition A, Maximum Capacity.	23	41	90	75	Maximum Capacity, k=2.
Off-Cycle, Condition A	.....	.....	90	75	Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).

TABLE 13—TEST OPERATING CONDITIONS FOR VARIABLE- OR MULTIPLE-CAPACITY LOW-TEMPERATURE OUTDOOR DEDICATED CONDENSING UNITS

Test title	Suction dew point, °F	Return gas, °F	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F [1]	Compressor operating mode
Capacity, Condition A, Minimum Capacity.	−22	5	95	75	Minimum Capacity, k=1.
Capacity, Condition A, Intermediate Capacity.	−22	5	95	75	Minimum Capacity, k=i.
Capacity, Condition A, Maximum Capacity.	−22	5	95	75	Maximum Capacity, k=2.
Off-Cycle, Condition A	.....	.....	95	75	Compressor Off.
Capacity, Condition B, Minimum Capacity.	−22	5	59	54	Minimum Capacity, k=1.
Capacity, Condition B, Intermediate Capacity.	−22	5	59	54	Minimum Capacity, k=i.
Capacity, Condition B, Maximum Capacity.	−22	5	59	54	Maximum Capacity, k=2.
Off-Cycle, Condition B	.....	.....	59	54	Compressor Off.
Capacity, Condition C, Minimum Capacity.	−22	5	35	34	Minimum Capacity, k=1.
Capacity, Condition C, Intermediate Capacity.	−22	5	35	34	Minimum Capacity, k=i.
Capacity, Condition C, Maximum Capacity.	−22	5	35	34	Maximum Capacity, k=2
Off-Cycle, Condition C	.....	.....	35	34	Compressor Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).

TABLE 14—TEST OPERATING CONDITIONS FOR VARIABLE- OR MULTIPLE-CAPACITY LOW-TEMPERATURE INDOOR DEDICATED CONDENSING UNITS

Test title	Suction dew point, °F	Return gas, °F	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F [1]	Compressor operating mode
Capacity, Condition A, Minimum Capacity.	−22	5	90	75	Minimum Capacity, k=1.
Capacity, Condition A, Intermediate Capacity.	−22	5	90	75	Minimum Capacity, k=i.
Capacity, Condition A, Maximum Capacity.	−22	5	90	75	Maximum Capacity, k=2.
Off-Cycle, Condition A	.....	.....	90	75	Compressor Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).

3.2.5 Test Operating Conditions for Two-Capacity Indoor Matched-Pair or Single-Packaged Refrigeration Systems

For two-capacity indoor medium-temperature matched-pair or single-packaged refrigeration systems, conduct tests using the test conditions specified in table 15 of this appendix. For two-capacity indoor low-temperature matched-pair or single-packaged refrigeration systems, conduct tests using the test conditions specified in table 16 of this appendix.

TABLE 15—TEST OPERATING CONDITIONS FOR TWO-CAPACITY MEDIUM-TEMPERATURE INDOOR MATCHED-PAIR OR SINGLE-PACKAGED REFRIGERATION SYSTEMS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F	Compressor status
Capacity, Condition A, Low Capacity	35	<50	90	[1] 75, [2] 65	Low Capacity.
Capacity, Condition A, High Capacity	35	<50	90	[1] 75, [2] 65	High Capacity.
Off-Cycle, Condition A	35	<50	90	[1] 75, [2] 65	Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).
[2] Maximum allowable value for Single-Packaged Systems that do not use evaporative Dedicated Condensing Units, where all or part of the equipment is located in the outdoor room.

TABLE 16—TEST OPERATING CONDITIONS FOR TWO CAPACITY LOW-TEMPERATURE INDOOR MATCHED-PAIR OR SINGLE-PACKAGED REFRIGERATION SYSTEMS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Condenser air entering dry-bulb, °F	Maximum condenser air entering wet-bulb, °F	Compressor status
Capacity, Condition A, Low Capacity	−10	<50	90	[1] 75, [2] 65	Low Capacity.
Capacity, Condition A, High Capacity	−10	<50	90	[1] 75, [2] 65	High Capacity.
Off-Cycle, Condition A	−10	<50	90	[1] 75, [2] 65	Off.
Defrost	−10	<50	.....	.....	System Dependent.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).
[2] Maximum allowable value for Single-Packaged Systems that do not use evaporative Dedicated Condensing Units, where all or part of the equipment is located in the outdoor room.

3.2.6 Test Conditions for Variable- or Multiple-Capacity Indoor Matched Pair or Single-Packaged Refrigeration Systems

For variable- or multiple-capacity indoor medium-temperature matched-pair or single-packaged refrigeration systems, conduct tests using the test conditions specified in table 17 of this appendix. For variable- or multiple-capacity indoor low-temperature matched-pair or single-packaged refrigeration systems, conduct tests using the test conditions specified in table 18 of this appendix.

TABLE 17—TEST OPERATING CONDITIONS FOR VARIABLE- OR MULTIPLE-CAPACITY MEDIUM-TEMPERATURE INDOOR MATCHED-PAIR OR SINGLE-PACKAGED REFRIGERATION SYSTEMS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Condenser air entering dry-bulb, °F	Condenser air entering wet-bulb, °F	Compressor status
Capacity, Condition A, Minimum Capacity.	35	<50	90	[1] 75, [2] 65	Minimum Capacity.
Capacity, Condition A, Intermediate Capacity.	35	<50	90	[1] 75, [2] 65	Intermediate Capacity.
Capacity, Condition A, High Capacity	35	<50	90	[1] 75, [1] 65	Maximum Capacity.
Off-Cycle, Condition A	35	<50	90	[1] 75, [2] 65	Off.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).
[2] Maximum allowable value for Single-Packaged Systems that do not use evaporative Dedicated Condensing Units, where all or part of the equipment is located in the outdoor room.

TABLE 18—TEST OPERATING CONDITIONS FOR VARIABLE- OR MULTIPLE-CAPACITY LOW-TEMPERATURE INDOOR MATCHED-PAIR OR SINGLE-PACKAGED REFRIGERATION SYSTEMS

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Condenser air entering dry-bulb, °F	Maximum condenser air entering wet-bulb, °F	Compressor status
Capacity, Condition A, Minimum Capacity.	−10	<50	90	[1] 75, [2] 65	Minimum Capacity.
Capacity, Condition A, Intermediate Capacity.	−10	<50	90	[1] 75, [2] 65	Intermediate Capacity.
Capacity, Condition A, Maximum Capacity.	−10	<50	90	[1] 75, [2] 65	Maximum Capacity.
Off-Cycle, Condition A	−10	<50	90	[1] 75, [2] 65	Off.

TABLE 18—TEST OPERATING CONDITIONS FOR VARIABLE- OR MULTIPLE-CAPACITY LOW-TEMPERATURE INDOOR MATCHED-PAIR OR SINGLE-PACKAGED REFRIGERATION SYSTEMS—Continued

Test description	Unit cooler air entering dry-bulb, °F	Unit cooler air entering relative humidity, %	Condenser air entering dry-bulb, °F	Maximum condenser air entering wet-bulb, °F	Compressor status
Defrost	−10	<50			System Dependent.

Notes:
[1] Required only for evaporative condensing units (*e.g.,* incorporates a slinger ring).
[2] Maximum allowable value for Single-Packaged Systems that do not use evaporative Dedicated Condensing Units, where all or part of the equipment is located in the outdoor room.

3.3 Calculation for Walk-in Box Load

3.3.1 For medium- and low-temperature refrigeration systems with indoor condensing units, calculate walk-in box loads for high and low load periods as a function of net capacity as described in section 6.2.1 of AHRI 1250–2020.

3.3.2 For medium- and low-temperature refrigeration systems with outdoor condensing units, calculate walk-in box loads for high and low load periods as a function of net capacity and outdoor temperature as described in section 6.2.2 of AHRI 1250–2020.

3.3.3 For high-temperature refrigeration systems, calculate walk-in box load as follows.

$\dot{B}L = 0.5 \cdot \dot{q}_{ss,A}$

Where $\dot{q}_{ss,A}$ is the measured net capacity for Test Condition A.

3.4 Calculation for Annual Walk-in Energy Factor (AWEF2)

Calculations used to determine AWEF2 based on performance data obtained for testing shall be as specified in section 7 of AHRI 1250–2020 with modifications as indicated in sections 3.4.7 through 3.4.10 of this appendix. Calculations used to determine AWEF2 for refrigeration systems not specifically identified in sections 7.1.1 through 7.1.6 of AHRI 1250–2020 are enumerated in sections 3.4.1 through 3.4.6 and 3.4.11 through 3.4.14 of this appendix.

3.4.1 Two-Capacity Condensing Units Tested Alone, Indoor

3.4.1.1 Unit Cooler Power

Calculate maximum-capacity unit cooler power during the compressor on period $\dot{E}F_{comp,on}$, in Watts, using Equation 130 of AHRI 1250–2020 for medium-temperature refrigeration systems and using Equation 173 of AHRI 1250–2020 for low-temperature refrigeration systems.

Calculate unit cooler power during the compressor off period $\dot{E}F_{comp,off}$, in Watts, as 20 percent of the maximum-capacity unit cooler power during the compressor on period.

3.4.1.2 Defrost

For freezer refrigeration systems, calculate defrost heat contribution $\dot{Q}_{DF}$ in Btu/h and the defrost average power consumption $\dot{D}F$ in W as a function of steady-state maximum gross refrigeration capacity $\dot{Q}_{gross}{}^{k=2}$, as specified in section C10.2.2 of Appendix C of AHRI 1250–2020.

3.4.1.3 Net Capacity

Calculate steady-state maximum net capacity, $\dot{q}_{ss}{}^{k=2}$, and minimum net capacity, $\dot{q}_{ss}{}^{k=1}$ as follows:

$\dot{q}_{ss}{}^{k=2} = \dot{Q}_{gross}{}^{k=2} - 3412 \cdot \dot{E}F_{comp,on}$

$\dot{q}_{ss}{}^{k=1} = \dot{Q}_{gross}{}^{k=1} - 3412 \cdot 0.2 \cdot \dot{E}F_{comp,on}$

Where:

$\dot{Q}_{gross}{}^{k=2}$ and $\dot{Q}_{gross}{}^{k=1}$ represent gross refrigeration capacity at maximum and minimum capacity, respectively.

3.4.1.4 Calculate average power input during the low load period as follows.

If the low load period box load, $\dot{B}LL$, plus defrost heat contribution, $\dot{Q}_{DF}$ (only applicable for freezers), is less than the minimum net capacity $\dot{q}_{ss}{}^{k=1}$:

$$LFL^{k=1} = \frac{\dot{BLL} + 3.412 \cdot \dot{EF}_{comp,off} + \dot{Q}_{DF}}{\dot{q}_{ss}^{k=1} + 3.412 \cdot \dot{EF}_{comp,off}}$$

$$\dot{E}_L = \left(\dot{E}_{ss}^{k=1} + 0.2 \cdot \dot{EF}_{comp,on}\right) * LFL^{k=1} + \left(\dot{EF}_{comp,off} + \dot{E}_{cu,off}\right) * \left(1 - LFL^{k=1}\right)$$

Where:

$\dot{E}_{ss}{}^{k=1}$ is the steady state condensing unit power input for minimum-capacity operation.

$\dot{E}_{cu,off}$ is the condensing unit off-cycle power input, measured as described in section C3.5 of AHRI 1250–2020.

If the low load period box load, $\dot{B}LL$, plus defrost heat contribution, $\dot{Q}_{DF}$, (only applicable for freezers) is greater than the minimum net capacity $\dot{q}_{ss}{}^{k=1}$:

$$LFL^{k=1} = \frac{\dot{q}_{ss}^{k=2} - (\dot{BLL} + \dot{Q}_{DF})}{\dot{q}_{ss}^{k=2} - \dot{q}_{ss}^{k=1}}$$

$$LFL^{k=2} = 1 - LFL^{k=1}$$

$$\dot{E}_L = \left(\dot{E}_{ss}^{k=1} + 0.2 \cdot \dot{EF}_{comp,on}\right) * LFL^{k=1} + \left(\dot{E}_{ss}^{k=2} + \dot{EF}_{comp,on}\right) * LFL^{k=2}$$

3.4.1.5 Calculate average power input during the high load period as follows.

$$LFH^{k=1} = \frac{\dot{q}_{ss}^{k=2} - (\dot{BLH} + \dot{Q}_{DF})}{\dot{q}_{ss}^{k=2} - \dot{q}_{ss}^{k=1}}$$

$$LFH^{k=2} = 1 - LFH^{k=1}$$

$$\dot{E}_H = \left(\dot{E}_{ss}^{k=1} + 0.2 \cdot \dot{EF}_{comp,on}\right) * LFH^{k=1} + \left(\dot{E}_{ss}^{k=2} + \dot{EF}_{comp,on}\right) * LFH^{k=2}$$

3.4.1.6 Calculate the AWEF2 as follows:

$$AWEF2 = \frac{0.33 \cdot \dot{BLH} + 0.67 \cdot \dot{BLL}}{0.33 \cdot \dot{E}_H + 0.67 \cdot \dot{E}_L + \dot{DF}}$$

3.4.2 Variable-Capacity or Multistage Condensing Units Tested Alone, Indoor

3.4.2.1 Unit Cooler Power

Calculate maximum-capacity unit cooler power during the compressor on period $\dot{EF}_{comp,on}$ as described in section 3.4.1.1 of this appendix.

Calculate unit cooler power during the compressor off period $\dot{EF}_{comp,off}$, in Watts, as 20 percent of the maximum-capacity unit cooler power during the compressor on period.

3.4.2.2 Defrost

Calculate Defrost parameters as described in section 4.4.1.2 of this appendix.

3.4.2.3 Net Capacity

Calculate steady-state maximum net capacity, $\dot{q}_{ss}^{k=2}$, intermediate net capacity, $\dot{q}_{ss}^{k=i}$, and minimum net capacity, $\dot{q}_{ss}^{k=1}$ as follows:

$\dot{q}_{ss}^{k=2} = \dot{Q}_{gross}^{k=2} - 3412 \cdot \dot{EF}_{comp,on}$

$\dot{q}_{ss}^{k=2} = \dot{Q}_{gross}^{k=2} - 3412 \cdot K_f \cdot \dot{EF}_{comp,on}$

$\dot{q}_{ss}^{k=1} = \dot{Q}_{gross}^{k=1} - 3412 \cdot 0.2 \cdot \dot{EF}_{comp,on}$

Where:

$\dot{Q}_{gross}^{k=2}$, $\dot{Q}_{gross}^{k=i}$, $\dot{Q}_{gross,}^{k=1}$, and represent gross refrigeration capacity at maximum, intermediate, and minimum capacity, respectively.

K_f is the unit cooler power coefficient for intermediate capacity operation, set equal to 0.2 to represent low-speed fan operation if the Duty Cycle for a Digital Compressor, the Speed Ratio for a Variable-Speed Compressor, or the Displacement Ratio for a Multi-Stage Compressor at Intermediate Capacity is 65% or less, and otherwise set equal to 1.0.

3.4.2.4 Calculate average power input during the low load period as follows.

If the low load period box load, $\dot{BLL}$, plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is less than the minimum net capacity $\dot{q}_{ss}^{k=1}$:

$$LFL^{k=1} = \frac{\dot{BLL} + 3.412 \cdot \dot{EF}_{comp,off} + \dot{Q}_{DF}}{\dot{q}_{ss}^{k=1} + 3.412 \cdot \dot{EF}_{comp,off}}$$

$$\dot{E}_L = \left(\dot{E}_{ss}^{k=1} + 0.2 \cdot \dot{EF}_{comp,on}\right) * LFL^{k=1} + \left(\dot{EF}_{comp,off} + \dot{E}_{cu,off}\right) * \left(1 - LFL^{k=1}\right)$$

Where $\dot{E}_{cu,off}$, in W, is the condensing unit off-mode power consumption, measured as described in section C3.5 of AHRI 1250–2020.

If the low load period box load $\dot{BLL}$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is greater than the minimum net capacity $\dot{q}_{ss}^{k=1}$ and less than the intermediate net capacity $\dot{q}_{ss}^{k=i}$:

$$EER_L = EER^{k=1} + \left(EER^{k=i} - EER^{k=1}\right) \frac{(\dot{BLL} + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=1}}{\dot{q}_{ss}^{k=i} - \dot{q}_{ss}^{k=1}}$$

$$\dot{E}_L = \frac{\dot{BLL} + \dot{Q}_{DF}}{EER_L}$$

Where:

$EER^{k=1}$ is the minimum-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=1}$ divided by $\dot{E}_{ss}^{k=1} + 0.2 \cdot \dot{EF}_{comp,on}$; and

$EER^{k=i}$ is the intermediate-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=i}$ divided by $\dot{E}_{ss}^{k=i} + K_f \cdot \dot{EF}_{comp,on}$.

3.4.2.5 Calculate average power input during the high load period as follows:

If the high load period box load, $\dot{BLH}$, plus defrost heat contribution, $\dot{Q}_{DF}$ (only applicable for freezers), is greater than the minimum net capacity $\dot{q}_{ss}^{k=1}$ and less than the intermediate net capacity $\dot{q}_{ss}^{k=i}$:

$$EER_H = EER^{k=1} + \left(EER^{k=i} - EER^{k=1}\right)\frac{(\dot{BLH} + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=1}}{\dot{q}_{ss}^{k=i} - \dot{q}_{ss}^{k=1}}$$

$$\dot{E}_H = \frac{\dot{BLH} + \dot{Q}_{DF}}{EER_H}$$

If the high load period box load, $\dot{BLH}$, plus defrost heat contribution, $\dot{Q}_{DF}$ (only applicable for freezers), is greater than the intermediate net capacity, $\dot{q}_{ss}^{k=i}$, and less than the maximum net capacity, $\dot{q}_{ss}^{k=2}$:

$$EER_H = EER^{k=i} + \left(EER^{k=2} - EER^{k=i}\right)\frac{(\dot{BLH} + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=i}}{\dot{q}_{ss}^{k=2} - \dot{q}_{ss}^{k=i}}$$

$$\dot{E}_H = \frac{\dot{BLH} + \dot{Q}_{DF}}{EER_H}$$

Where:

$EER^{k=2}$ is the maximum-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=2}$ divided by $\dot{E}_{ss}^{k=2} + \dot{EF}_{comp,on}$

3.4.2.6 Calculate the AWEF2 as follows.

$$AWEF2 = \frac{0.33 \cdot \dot{BLH} + 0.67 \cdot \dot{BLL}}{0.33 \cdot \dot{E}_H + 0.67 \cdot \dot{E}_L + \dot{DF}}$$

3.4.3 Two-Capacity Condensing Units Tested Alone, Outdoor

3.4.3.1 Unit Cooler Power

Calculate maximum-capacity unit cooler power during the compressor on period $\dot{EF}_{comp,on}$, in Watts, using Equation 153 of AHRI 1250–2020 for medium-temperature refrigeration systems and using Equation 196 of AHRI 1250–2020 for low-temperature refrigeration systems.

Calculate unit cooler power during the compressor off period $\dot{EF}_{comp,off}$, in Watts, as 20 percent of the maximum-capacity unit cooler power during the compressor on period.

3.4.3.2 Defrost

Calculate Defrost parameters as described in section 3.4.1.2 of this appendix.

3.4.3.3 Condensing Unit Off-Cycle Power

Calculate Condensing Unit Off-Cycle Power for temperature t_j as follows.

$$\dot{E}_{cu,off}(t_j) = \begin{cases} \dot{E}_{cu,off,A} & if\ t_j \geq 95\ °F \\ See\ note\ below & if\ 35\ °F < t_j < 95°F \\ \dot{E}_{cu,off,C} & if\ t_j \leq 35°F \end{cases}$$

Where $\dot{E}_{cu,off,A}$ and $\dot{E}_{cu,off,C}$ are the Condensing Unit off-cycle power measurements for test conditions A and C, respectively, measured as described in section C3.5 of AHRI 1250–2020. If t_j is greater than 35 °F and less than 59 °F, use Equation 157 of AHRI 1250–2020, and if t_j is greater than or equal to 59 °F and less than 95 °F, use Equation 159 of AHRI 1250–2020.

3.4.3.4 Net Capacity and Condensing Unit Power Input

Calculate steady-state maximum net capacity, $\dot{q}_{ss}^{k=2}(t_j)$, and minimum net capacity, $\dot{q}_{ss}^{k=1}(t_j)$, and corresponding condensing unit power input levels $\dot{E}_{ss}^{k=2}(t_j)$ and $\dot{E}_{ss}^{k=1}(t_j)$ as a function of outdoor temperature t_j as follows:

If $t_j \leq 59$ °F:

$$\dot{q}_{ss}^{k=2}(t_j) = \dot{Q}_{gross,C}^{k=2} + \left(\dot{Q}_{gross,B}^{k=2} - \dot{Q}_{gross,C}^{k=2}\right)\frac{t_j - 35}{59 - 35} - 3.412 \cdot \dot{EF}_{comp,on}$$

$$\dot{q}_{ss}^{k=1}(t_j) = \dot{Q}_{gross,C}^{k=1} + \left(\dot{Q}_{gross,B}^{k=1} - \dot{Q}_{gross,C}^{k=1}\right)\frac{t_j - 35}{59 - 35} - 3.412 \cdot 0.2 \cdot \dot{EF}_{comp,on}$$

$$\dot{E}_{ss}^{k}(t_j) = \dot{E}_{ss,C}^{k} + \left(\dot{E}_{ss,B}^{k} - \dot{E}_{ss,C}^{k}\right)\frac{t_j - 35}{59 - 35}$$

If 59 °F < t_j:

$$\dot{q}_{ss}^{k=2}(t_j) = \dot{Q}_{gross,B}^{k=2} + \left(\dot{Q}_{gross,A}^{k=2} - \dot{Q}_{gross,B}^{k=2}\right)\frac{t_j - 59}{95 - 59} - 3.412 \cdot \dot{EF}_{comp,on}$$

$$\dot{q}_{ss}^{k=1}(t_j) = \dot{Q}_{gross,B}^{k=1} + \left(\dot{Q}_{gross,A}^{k=1} - \dot{Q}_{gross,B}^{k=1}\right)\frac{t_j - 59}{95 - 59} - 3.412 \cdot 0.2 \cdot \dot{EF}_{comp,on}$$

$$\dot{E}_{ss}^{k}(t_j) = \dot{E}_{ss,B}^{k} + \left(\dot{E}_{ss,A}^{k} - \dot{E}_{ss,B}^{k}\right)\frac{t_j - 59}{95 - 59}$$

Where:

The capacity level k can equal 1 or 2;

$\dot{Q}_{gross,X}^{k=2}$ and $\dot{Q}_{gross,X}^{k=1}$ represent gross refrigeration capacity at maximum and minimum capacity, respectively, for test condition X, which can take on values A, B, or C;

$\dot{E}_{ss,X}^{k=2}$ and $\dot{E}_{ss,X}^{k=1}$ represent condensing unit power input at maximum and minimum capacity, respectively for test condition X.

3.4.3.5 Calculate average power input during the low load period as follows.

Calculate the temperature, t_{IL}, in the following equation which the low load period box load, $\dot{BLL}(t_j)$, plus defrost heat contribution, $\dot{Q}_{DF}$ (only applicable for freezers), is less than the minimum net capacity, $\dot{q}_{ss}^{k=1}(t_j)$, by solving the following equation for t_{IL}:

$\dot{BLL}(t_{IL}) + \dot{Q}_{DF} = \dot{q}_{ss}^{k=1}(t_{IL})$

For $t_j < t_{IL}$:

$$LFL^{k=1}(t_j) = \frac{\dot{BLL}(t_j) + 3.412 \cdot \dot{EF}_{comp,off} + \dot{Q}_{DF}}{\dot{q}_{ss}^{k=1}(t_j) + 3.412 \cdot \dot{EF}_{comp,off}}$$

$$\dot{E}_L(t_j) = \left(\dot{E}_{ss}^{k=1}(t_j) + 0.2 \cdot \dot{EF}_{comp,on}\right) * LFL^{k=1}(t_j) + \left(\dot{EF}_{comp,off} + \dot{E}_{cu,off}(t_j)\right) * \left(1 - LFL^{k=1}(t_j)\right)$$

Where $\dot{E}_{cu,off}(t_j)$, in W, is the condensing unit off-mode power consumption for temperature t_j, determined as indicated in section 3.4.3.3 of this appendix.

For $t_j \geq t_{IL}$:

$$LFL^{k=1}(t_j) = \frac{\dot{q}_{ss}^{k=2}(t_j) - (\dot{BLL}(t_j) + \dot{Q}_{DF})}{\dot{q}_{ss}^{k=2}(t_j) - \dot{q}_{ss}^{k=1}(t_j)}$$

$$LFL^{k=2}(t_j) = 1 - LFL^{k=1}(t_j)$$

$$\dot{E}_L(t_j) = \left(\dot{E}_{ss}^{k=1}(t_j) + 0.2 \cdot \dot{EF}_{comp,on}\right) * LFL^{k=1}(t_j) + \left(\dot{E}_{ss}^{k=2}(t_j) + \dot{EF}_{comp,on}\right) * LFL^{k=2}(t_j)$$

3.4.3.6 Calculate average power input during the high load period as follows.

Calculate the temperature, t_{IH}, in the following equation which the high load period box load, $\dot{BLH}(t_j)$, plus defrost heat contribution, $\dot{Q}_{DF}$ (only applicable for freezers), is less than the minimum net capacity, $\dot{q}_{ss}^{k=1}(t_j)$, by solving the following equation for t_{IH}:

$\dot{BLH}(t_{IH}) + \dot{Q}_{DF} = \dot{q}_{ss}^{k=1}(t_{IH})$

Calculate the temperature, t_{IIH}, in the following equation which the high load period box load $\dot{BLH}(t_j)$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is less than the maximum net capacity $\dot{q}_{ss}^{k=2}(t_j)$, by solving the following equation for t_{IIH}:

$\dot{BLH}(t_{IIH}) + \dot{Q}_{DF} = \dot{q}_{ss}^{k=1}(t_{IIH})$

For $t_j < t_{IH}$:

$$LFH^{k=1}(t_j) = \frac{B\dot{L}H(t_j) + 3.412 \cdot \dot{EF}_{comp,off} + \dot{Q}_{DF}}{\dot{q}_{ss}^{k=1}(t_j) + 3.412 \cdot \dot{EF}_{comp,off}}$$

$$\dot{E}_H(t_j) = \left(\dot{E}_{ss}^{k=1}(t_j) + 0.2 \cdot \dot{EF}_{comp,on}\right) * LFH^{k=1}(t_j) +$$

$$\left(\dot{EF}_{comp,off} + \dot{E}_{cu,off}(t_j)\right) * \left(1 - LFH^{k=1}(t_j)\right)$$

For $t_{IH} \leq t_j < t_{IIH}$:

$$LFH^{k=1}(t_j) = \frac{\dot{q}_{ss}^{k=2}(t_j) - (B\dot{L}H(t_j) + \dot{Q}_{DF})}{\dot{q}_{ss}^{k=2}(t_j) - \dot{q}_{ss}^{k=1}(t_j)}$$

$$LFH^{k=2}(t_j) = 1 - LFH^{k=1}(t_j)$$

$$\dot{E}_H(t_j) = \left(\dot{E}_{ss}^{k=1}(t_j) + 0.2 \cdot \dot{EF}_{comp,on}\right) * LFH^{k=1}(t_j) + \left(\dot{E}_{ss}^{k=2}(t_j) + \dot{EF}_{comp,on}\right) * LFH^{k=2}(t_j)$$

For $t_{IIH} \leq t_j$:

$\dot{E}_H(t_j) = (\dot{E}_{ss}^{k=2}(t_j) + \dot{EF}_{comp,on})$

3.4.3.7 Calculate the AWEF2 as follows:

$$AWEF2 = \frac{\sum_{j=1}^{n}\left[0.33 \cdot B\dot{L}H(t_j) + 0.67 \cdot B\dot{L}L(t_j)\right] \cdot n_j}{\sum_{j=1}^{n}\left[0.33 \cdot \dot{E}_H(t_j) + 0.67 \cdot \dot{E}_L(t_j) + \dot{DF}\right] \cdot n_j}$$

3.4.4 Variable-Capacity or Multistage Condensing Units Tested Alone, Outdoor

3.4.4.1 Unit Cooler Power

Calculate maximum-capacity unit cooler power during the compressor on period $\dot{EF}_{comp,on}$ as described in section 3.4.1.1 of this appendix.

Calculate unit cooler power during the compressor off period $\dot{EF}_{comp,on}$, in Watts, as 20 percent of the maximum-capacity unit cooler power during the compressor on period.

3.4.4.2 Defrost

Calculate Defrost parameters as described in section 3.4.1.2 of this appendix.

3.4.4.3 Condensing Unit Off-Cycle Power

Calculate Condensing Unit Off-Cycle Power for temperature, t_j, as described in section 3.4.3.3 of this appendix.

3.4.4.4 Net Capacity and Condensing Unit Power Input

Calculate steady-state maximum net capacity, $\dot{q}_{ss}^{k=2}(t_j)$, intermediate net capacity, $\dot{q}_{ss}^{k=i}(t_j)$, and minimum net capacity, $\dot{q}_{ss}^{k=1}(t_j)$, and corresponding condensing unit power input levels $\dot{E}_{ss}^{k=2}(t_j)$, $\dot{E}_{ss}^{k=i}(t_j)$, $\dot{E}_{ss}^{k=1}(t_j)$ and as a function of outdoor temperature, t_j, as follows:

If $t_j \leq 59$ °F:

$$\dot{q}_{ss}^{k=2}(t_j) = \dot{Q}_{gross,C}^{k=2} + \left(\dot{Q}_{gross,B}^{k=2} - \dot{Q}_{gross,C}^{k=2}\right)\frac{t_j - 35}{59 - 35} - 3.412 \cdot \dot{EF}_{comp,on}$$

$$\dot{q}_{ss}^{k=i}(t_j) = \dot{Q}_{gross,C}^{k=i} + \left(\dot{Q}_{gross,B}^{k=i} - \dot{Q}_{gross,C}^{k=i}\right)\frac{t_j - 35}{59 - 35} - 3.412 \cdot K_f.\dot{EF}_{comp,on}$$

$$\dot{q}_{ss}^{k=1}(t_j) = \dot{Q}_{gross,C}^{k=1} + \left(\dot{Q}_{gross,B}^{k=1} - \dot{Q}_{gross,C}^{k=1}\right)\frac{t_j - 35}{59 - 35} - 3.412 \cdot 0.2 \cdot \dot{EF}_{comp,on}$$

$$\dot{E}_{ss}^{k}(t_j) = \dot{E}_{ss,C}^{k} + \left(\dot{E}_{ss,B}^{k} - \dot{E}_{ss,C}^{k}\right)\frac{t_j - 35}{59 - 35}$$

If 59 °F < t_j:

$$\dot{q}_{ss}^{k=2}(t_j) = \dot{Q}_{gross,B}^{k=2} + \left(\dot{Q}_{gross,A}^{k=2} - \dot{Q}_{gross,B}^{k=2}\right)\frac{t_j - 59}{95 - 59} - 3.412 \cdot \dot{EF}_{comp,on}$$

$$\dot{q}_{ss}^{k=i}(t_j) = \dot{Q}_{gross,B}^{k=i} + \left(\dot{Q}_{gross,A}^{k=i} - \dot{Q}_{gross,B}^{k=i}\right)\frac{t_j - 59}{95 - 59} - 3.412 \cdot K_f \cdot \dot{EF}_{comp,on}$$

$$\dot{q}_{ss}^{k=1}(t_j) = \dot{Q}_{gross,B}^{k=1} + \left(\dot{Q}_{gross,A}^{k=1} - \dot{Q}_{gross,B}^{k=1}\right)\frac{t_j - 59}{95 - 59} - 3.412 \cdot 0.2 \cdot \dot{EF}_{comp,on}$$

$$\dot{E}_{ss}^{k}(t_j) = \dot{E}_{ss,B}^{k} + \left(\dot{E}_{ss,A}^{k} - \dot{E}_{ss,B}^{k}\right)\frac{t_j - 59}{95 - 59}$$

Where:

The capacity level k can equal 1, i, or 2;

$\dot{Q}_{gross,X}^{k=2}$, $\dot{Q}_{gross,X}^{k=i}$ and $\dot{Q}_{gross,X}^{k=1}$ represent gross refrigeration capacity at maximum, intermediate, and minimum capacity, respectively, for test condition X, which can take on values A, B, or C;

$\dot{E}_{ss,X}^{k=2}$ and $\dot{E}_{ss,X}^{k=1}$ represent condensing unit power input at maximum and minimum capacity, respectively for test condition X; and

K_f is the unit cooler power coefficient for intermediate capacity operation, set equal to 0.2 to represent low-speed fan operation if the Duty Cycle for a Digital Compressor, the Speed Ratio for a Variable-Speed Compressor, or the Displacement Ratio for a Multi-Stage Compressor at Intermediate Capacity is 65% or less, and otherwise set equal to 1.0.

3.4.4.5 Calculate average power input during the low load period as follows.

Calculate the temperature, t_{IL}, in the following equation which the low load period box load $\dot{BLL}(t_j)$ plus defrost heat contribution, $\dot{Q}_{DF}$ (only applicable for freezers), is less than the minimum net capacity, $\dot{q}_{ss}^{k=1}(t_j)$, by solving the following equation for t_{IL}:

$\dot{BLL}(t_{IL}) + \dot{Q}_{DF} = \dot{q}_{ss}^{k=1}(t_{IL})$

Calculate the temperature, t_{VL}, in the following equation which the low load period box load, $\dot{BLL}(t_j)$, plus defrost heat contribution, $\dot{Q}_{DF}$ (only applicable for freezers), is less than the intermediate net capacity, $\dot{q}_{ss}^{k=i}(t_j)$, by solving the following equation for t_{VL}:

$\dot{BLL}(t_{VL}) + \dot{Q}_{DF} = \dot{q}_{ss}^{k=i}(t_{VL})$

For $t_j < t_{IL}$:

$$LFL^{k=1}(t_j) = \frac{\dot{BLL}(t_j) + 3.412 \cdot \dot{EF}_{comp,off} + \dot{Q}_{DF}}{\dot{q}_{ss}^{k=1}(t_j) + 3.412 \cdot \dot{EF}_{comp,off}}$$

$$\dot{E}_L(t_j) = \left(\dot{E}_{ss}^{k=1}(t_j) + 0.2 \cdot \dot{EF}_{comp,on}\right) * LFL^{k=1}(t_j) + \left(\dot{EF}_{comp,off} + \dot{E}_{cu,off}(t_j)\right) * \left(1 - LFL^{k=1}(t_j)\right)$$

Where, $\dot{E}_{cu,off}(t_j)$ in W, is the condensing unit off-mode power consumption for temperature, t_j, determined as indicated in section 3.4.3.3 of this appendix.

For $t_{IL} \leq t_j < t_{VL}$:

$$EER_L(t_j) = EER^{k=1}(t_j) + \left(EER^{k=i}(t_j) - EER^{k=1}(t_j)\right)\frac{(\dot{BLL}(t_j) + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=1}(t_j)}{\dot{q}_{ss}^{k=i}(t_j) - \dot{q}_{ss}^{k=1}(t_j)}$$

$$\dot{E}_L(t_j) = \frac{\dot{BLL}(t_j) + \dot{Q}_{DF}}{EER_L(t_j)}$$

For $t_{VL} \leq t_j$:

$$EER_L(t_j) = EER^{k=i}(t_j) + \left(EER^{k=2}(t_j) - EER^{k=i}(t_j)\right)\frac{(\dot{BLL}(t_j) + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=i}(t_j)}{\dot{q}_{ss}^{k=2}(t_j) - \dot{q}_{ss}^{k=i}(t_j)}$$

$$\dot{E}_L(t_j) = \frac{\dot{BLL}(t_j) + \dot{Q}_{DF}}{EER_L(t_j)}$$

Where:

$EER^{k=2}(t_j)$ is the minimum-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=1}(t_j)$ divided by $\dot{E}_{ss}^{k=1}(t_j) + 0.2\ \dot{EF}_{comp,on}$;

$EER^{k=i}(t_j)$ is the intermediate-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=i}(t_j)$ divided by $\dot{E}_{ss}^{k=i}(t_j) + K_f \cdot \dot{EF}_{comp,on}$; and

$EER^{k=2}(t_j)$ is the maximum-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=2}(t_j)$ divided by $\dot{E}_{ss}^{k=2}(t_j) + \dot{EF}_{comp,on}$

3.4.4.6 Calculate average power input during the high load period as follows.

Calculate the temperature t_{VH} in the following equation which the high load period box load $\dot{BLH}(t_j)$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is less than the intermediate net capacity $\dot{q}_{ss}^{k=i}(t_j)$, by solving the following equation for t_{VH}:

$\dot{BLH}(t_{VH}) + \dot{Q}_{DF} = \dot{q}_{ss}^{k=i}(t_{VH})$

Calculate the temperature t_{IIH} in the following equation which the high load period box load $\dot{BLH}(t_j)$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is less than the maximum net capacity $\dot{q}_{ss}^{k=2}(t_j)$, by solving the following equation for t_{IIH}:

$\dot{BLH}(t_{IIH}) + \dot{Q}_{DF} = \dot{q}_{ss}^{k=2}(t_{IIH})$

For $t_j < t_{VH}$:

$$EER_H(t_j) = EER^{k=1}(t_j) + \left(EER^{k=i}(t_j) - EER^{k=1}(t_j)\right) \frac{(\dot{BLH}(t_j) + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=1}(t_j)}{\dot{q}_{ss}^{k=i}(t_j) - \dot{q}_{ss}^{k=1}(t_j)}$$

$$\dot{E}_H(t_j) = \frac{\dot{BLH}(t_j) + \dot{Q}_{DF}}{EER_H(t_j)}$$

For $t_{VH} \leq t_j < t_{IIH}$:

$$EER_H(t_j) = EER^{k=i}(t_j) + \left(EER^{k=2}(t_j) - EER^{k=i}(t_j)\right) \frac{(\dot{BLH}(t_j) + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=i}(t_j)}{\dot{q}_{ss}^{k=2}(t_j) - \dot{q}_{ss}^{k=i}(t_j)}$$

$$\dot{E}_H(t_j) = \frac{\dot{BLH}(t_j) + \dot{Q}_{DF}}{EER_H(t_j)}$$

For $t_{IIH} \leq t_j$:

$\dot{E}_H(t_j) = (\dot{E}_{ss}^{k=2}(t_j) + \dot{EF}_{comp,on})$

3.4.4.7 Calculate the AWEF2 as follows:

$$AWEF2 = \frac{\sum_{j=1}^{n}\left[0.33 \cdot \dot{BLH}(t_j) + 0.67 \cdot \dot{BLL}(t_j)\right] \cdot n_j}{\sum_{j=1}^{n}\left[0.33 \cdot \dot{E}_H(t_j) + 0.67 \cdot \dot{E}_L(t_j) + \dot{DF}\right] \cdot n_j}$$

3.4.5 Two-Capacity Indoor Matched Pairs or Single-Packaged Refrigeration Systems Other Than High-Temperature

3.4.5.1 Defrost

For freezer refrigeration systems, defrost heat contribution $\dot{Q}_{DF}$ in Btu/h and the defrost average power consumption $\dot{DF}$ in W shall be as measured in accordance with section C10.2.1 of Appendix C of AHRI 1250–2020.

3.4.5.2 Calculate average power input during the low load period as follows.

If the low load period box load $\dot{BLL}$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is less than the minimum net capacity $\dot{q}_{ss}^{k=1}$:

$$LFL^{k=1} = \frac{\dot{BLL} + 3.412 \cdot \dot{EF}_{comp,off} + \dot{Q}_{DF}}{\dot{q}_{ss}^{k=1} + 3.412 \cdot \dot{EF}_{comp,off}}$$

$$\dot{E}_L = \left(\dot{E}_{ss}^{k=1}\right) * LFL^{k=1} + \left(\dot{EF}_{comp,off} + \dot{E}_{cu,off}\right) * (1 - LFL^{k=1})$$

Where:

$\dot{q}_{ss}^{k=1}$ and $\dot{E}_{ss}^{k=1}$ are the steady state refrigeration system minimum net capacity, in Btu/h, and associated refrigeration system power input, in W, respectively, for minimum-capacity operation, measured as described in AHRI 1250–2020.

$\dot{EF}_{comp,off}$ and $\dot{E}_{cu,off}$, both in W, are the unit cooler and condensing unit, respectively, off-mode power consumption, measured as described in section C3.5 of AHRI 1250–2020.

If the low load period box load $\dot{BLL}$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is greater than the minimum net capacity $\dot{q}_{ss}^{k=1}$:

$$LFL^{k=1} = \frac{\dot{q}_{ss}^{k=2} - (\dot{BLL} + \dot{Q}_{DF})}{\dot{q}_{ss}^{k=2} - \dot{q}_{ss}^{k=1}}$$

$$LFL^{k=2} = 1 - LFL^{k=1}$$

$$\dot{E}_L = \left(\dot{E}_{ss}^{k=1}\right) * LFL^{k=1} + \left(\dot{E}_{ss}^{k=2}\right) * LFL^{k=2}$$

Where $\dot{q}_{ss}^{k=2}$ and $\dot{E}_{ss}^{k=2}$ are the steady state refrigeration system maximum net capacity, in Btu/h, and associated refrigeration system power input, in W, respectively, for maximum-capacity operation, measured as described in AHRI 1250–2020.

3.4.5.3 Calculate average power input during the high load period as follows.

$$LFH^{k=1} = \frac{\dot{q}_{ss}^{k=2} - (\dot{BLH} + \dot{Q}_{DF})}{\dot{q}_{ss}^{k=2} - \dot{q}_{ss}^{k=1}}$$

$$LFH^{k=2} = 1 - LFH^{k=1}$$

$$\dot{E}_H = \left(\dot{E}_{ss}^{k=1}\right) * LFH^{k=1} + \left(\dot{E}_{ss}^{k=2}\right) * LFH^{k=2}$$

3.4.5.4 Calculate the AWEF2 as follows:

$$AWEF2 = \frac{0.33 \cdot \dot{BLH} + 0.67 \cdot \dot{BLL}}{0.33 \cdot \dot{E}_H + 0.67 \cdot \dot{E}_L + \dot{DF}}$$

3.4.6 Variable-Capacity or Multistage Indoor Matched Pairs or Single-Packaged Refrigeration Systems Other Than High-Temperature

3.4.6.1 Defrost

For freezer refrigeration systems, defrost heat contribution $\dot{Q}_{DF}$ in Btu/h and the defrost average power consumption $\dot{DF}$ in W shall be as measured in accordance with section C10.2.1 of Appendix C of AHRI 1250–2020.

3.4.6.2 Calculate average power input during the low load period as follows.

If the low load period box load $\dot{BLL}$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is less than the minimum net capacity $\dot{q}_{ss}^{k=1}$:

$$LFL^{k=1} = \frac{\dot{BLL} + 3.412 \cdot \dot{EF}_{comp,off} + \dot{Q}_{DF}}{\dot{q}_{ss}^{k=1} + 3.412 \cdot \dot{EF}_{comp,off}}$$

$$\dot{E}_L = \left(\dot{E}_{ss}^{k=1}\right) * LFL^{k=1} + \left(\dot{EF}_{comp,off} + \dot{E}_{cu,off}\right) * (1 - LFL^{k=1})$$

Where:

$\dot{q}_{ss}^{k=1}$ and $\dot{E}_{ss}^{k=1}$ are the steady state refrigeration system minimum net capacity, in Btu/h, and associated refrigeration system power input, in W, respectively, for minimum-capacity operation, measured as described in AHRI 1250–2020; and

$\dot{EF}_{comp,off}$ and $\dot{E}_{cu,off}$, both in W, are the unit cooler and condensing unit, respectively, off-mode power consumption, measured as described in section C3.5 of AHRI 1250–2020.

If the low load period box load $\dot{BLL}$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is greater than the minimum net capacity and less than the intermediate net capacity $\dot{q}_{ss}^{k=i}$:

$$EER_L = EER^{k=1} + \left(EER^{k=i} - EER^{k=1}\right) \frac{(\dot{BLL} + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=1}}{\dot{q}_{ss}^{k=i} - \dot{q}_{ss}^{k=1}}$$

$$\dot{E}_L = \frac{\dot{BLL} + \dot{Q}_{DF}}{EER_L}$$

Where:

$EER^{k=1}$ is the minimum-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=1}$ divided by $\dot{E}_{ss}^{k=1}$;

$\dot{q}_{ss}^{k=i}$ and $\dot{E}_{ss}^{k=i}$ are the steady state refrigeration system intermediate net capacity, in Btu/h, and associated refrigeration system power input, in W, respectively, for intermediate-capacity operation, measured as described in AHRI 1250–2020.

$EER^{k=i}$ is the intermediate-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=i}$ divided by $\dot{E}_{ss}^{k=i}$.

3.4.6.3 Calculate average power input during the high load period as follows.

If the high load period box load $B\dot{L}H$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is greater than the minimum net capacity $\dot{q}_{ss}^{k=1}$ and less than the intermediate net capacity $\dot{q}_{ss}^{k=i}$:

$$EER_H = EER^{k=1} + \left(EER^{k=i} - EER^{k=1}\right) \frac{(B\dot{L}H + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=1}}{\dot{q}_{ss}^{k=i} - \dot{q}_{ss}^{k=1}}$$

$$\dot{E}_H = \frac{B\dot{L}H + \dot{Q}_{DF}}{EER_H}$$

If the high load period box load $B\dot{L}H$ plus defrost heat contribution $\dot{Q}_{DF}$ (only applicable for freezers) is greater than the intermediate net capacity $\dot{q}_{ss}^{k=i}$ and less than the maximum net capacity $\dot{q}_{ss}^{k=2}$:

$$EER_H = EER^{k=i} + \left(EER^{k=2} - EER^{k=i}\right) \frac{(B\dot{L}H + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=i}}{\dot{q}_{ss}^{k=2} - \dot{q}_{ss}^{k=i}}$$

$$\dot{E}_H = \frac{B\dot{L}H + \dot{Q}_{DF}}{EER_H}$$

Where:

$\dot{q}_{ss}^{k=2}$ and $\dot{E}_{ss}^{k=2}$ are the steady state refrigeration system maximum net capacity, in Btu/h, and associated refrigeration system power input, in W, respectively, for maximum-capacity operation, measured as described in AHRI 1250–2020; and

$EER^{k=2}$ is the maximum-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=2}$ divided by $\dot{E}_{ss}^{k=2}$.

3.4.6.4 Calculate the AWEF2 as follows.

$$AWEF2 = \frac{0.33 \cdot B\dot{L}H + 0.67 \cdot B\dot{L}L}{0.33 \cdot \dot{E}_H + 0.67 \cdot \dot{E}_L + \dot{D}F}$$

3.4.7 Variable-Capacity or Multistage Outdoor Matched Pairs or Single-Packaged Refrigeration Systems Other Than High-Temperature

Calculate AWEF2 as described in section 7.6 of AHRI 1250–2020, with the following revisions.

3.4.7.1 Condensing Unit Off-Cycle Power

Calculate condensing unit off-cycle power for temperature t_j as indicated in section 3.4.3.3 of this appendix. Replace the constant value $\dot{E}_{CU,off}$ in Equations 55 and 70 of AHRI 1250–2020 with the values $\dot{E}_{CU,off}(t_j)$, which vary with outdoor temperature t_j.

3.4.7.2 Unit Cooler Off-Cycle Power

Set unit cooler Off-Cycle power $\dot{E}F_{comp,off}$ equal to the average of the unit cooler off-cycle power measurements made for test conditions A, B, and C.

3.4.7.3 Average Power During the Low Load Period

Calculate average power for intermediate-capacity compressor operation during the low load period $\dot{E}_{ss,L}^{k=v}(t_j)$ as described in section 7.6 of AHRI 1250–2020, except that, instead of calculating intermediate-capacity compressor EER using Equation 77 of AHRI 1250–2020, calculate EER as follows.

For $t_j < t_{VL}$:

$$\dot{E}_{ss,L}^{k=v}(t_j) = EER^{k=1}(t_j) + \left(EER^{k=i}(t_j) - EER^{k=1}(t_j)\right) \frac{(B\dot{L}L(t_j) + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=1}(t_j)}{\dot{q}_{ss}^{k=i}(t_j) - \dot{q}_{ss}^{k=1}(t_j)}$$

For $t_{VL} \leq t_j$:

$$\dot{E}_{ss,L}^{k=v}(t_j) = EER^{k=i}(t_j) + \left(EER^{k=2}(t_j) - EER^{k=i}(t_j)\right) \frac{(B\dot{L}L(t_j) + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=i}(t_j)}{\dot{q}_{ss}^{k=2}(t_j) - \dot{q}_{ss}^{k=i}(t_j)}$$

Where:

$EER^{k=1}(t_j)$ is the minimum-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=1}(t_j)$ divided by $\dot{E}_{ss}^{k=1}(t_j)$;

$EER^{k=i}(t_j)$ is the intermediate-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=i}(t_j)$ divided by $\dot{E}_{ss}^{k=i}(t_j)$; and

$EER^{k=2}(t_j)$ is the maximum-capacity energy efficiency ratio, equal to $\dot{q}_{ss}^{k=2}(t_j)$ divided by $\dot{E}_{ss}^{k=2}(t_j)$

3.4.7.4 Average Power During the High Load Period

Calculate average power for intermediate-capacity compressor operation during the high load period $\dot{E}_{ss,H}^{k=v}(t_j)$ as described in section 7.6 of AHRI 1250–2020, except that, instead of calculating intermediate-capacity compressor EER using Equation 61 of AHRI 1250–2020, calculate EER as follows:

For $t_j < t_{VH}$:

$$EER_{ss,H}^{k=v}(t_j) = EER^{k=1}(t_j) + \left(EER^{k=i}(t_j) - EER^{k=1}(t_j)\right) \frac{(\dot{BLH}(t_j) + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=1}(t_j)}{\dot{q}_{ss}^{k=i}(t_j) - \dot{q}_{ss}^{k=1}(t_j)}$$

For $t_{VH} \leq t_j$:

$$EER_{ss,H}^{k=v}(t_j) = EER^{k=i}(t_j) + \left(EER^{k=2}(t_j) - EER^{k=i}(t_j)\right) \frac{(\dot{BLH}(t_j) + \dot{Q}_{DF}) - \dot{q}_{ss}^{k=i}(t_j)}{\dot{q}_{ss}^{k=2}(t_j) - \dot{q}_{ss}^{k=i}(t_j)}$$

3.4.8 Two-Capacity Outdoor Matched Pairs or Single-Packaged Refrigeration Systems Other Than High-Temperature

Calculate AWEF2 as described in section 7.5 of AHRI 1250–2020, with the following revisions for Condensing Unit Off-Cycle Power and Unit Cooler Off-Cycle Power. Calculate condensing unit off-cycle power for temperature t_j as indicated in section 3.4.3.3 of this appendix. Replace the constant value $\dot{E}_{CU,off}$ in Equations 13 and 29 of AHRI 1250–2020 with the values $\dot{E}_{CU,off}(t_j)$, which vary with outdoor temperature t_j. Set unit cooler Off-Cycle power $\dot{EF}_{comp,off}$ equal to the average of the unit cooler off-cycle power measurements made for test conditions A, B, and C.

3.4.9 Single-Capacity Outdoor Matched Pairs or Single-Packaged Refrigeration Systems Other Than High-Temperature

Calculate AWEF2 as described in section 7.4 of AHRI 1250–2020, with the following revision for Condensing Unit Off-Cycle Power and Unit Cooler Off-cycle Power. Calculate condensing unit off-cycle power for temperature t_j as indicated in section 3.4.3.3 of this appendix. Replace the constant value $\dot{E}_{CU,off}$ in Equations 13 of AHRI 1250–2020 with the values $\dot{E}_{CU,off}(t_j)$, which vary with outdoor temperature t_j. Set unit cooler Off-Cycle power $\dot{EF}_{comp,off}$ equal to the average of the unit cooler off-cycle power measurements made for test conditions A, B, and C.

3.4.10 Single-Capacity Condensing Units, Outdoor

Calculate AWEF2 as described in section 7.9 of AHRI 1250–2020, with the following revision for Condensing Unit Off-Cycle Power. Calculate condensing unit off-cycle power for temperature t_j as indicated in section 3.4.3.3 of this appendix rather than as indicated in Equations 157, 159, 202, and 204 of AHRI 1250–2020.

3.4.11 High-Temperature Matched Pairs or Single-Packaged Refrigeration Systems, Indoor

3.4.11.1 Calculate Load Factor LF as follows:

$$LF = \frac{\dot{BL} + 3.412 \cdot \dot{EF}_{comp,off}}{\dot{q}_{ss,A} + 3.412 \cdot \dot{EF}_{comp,off}}$$

Where:

$\dot{BL}$, in Btu/h is the non-equipment-related box load calculated as described in section 3.3.3 of this appendix;

$\dot{EF}_{comp,off}$, in W, is the unit cooler off-cycle power consumption, equal to 0.1 times the unit cooler on-cycle power consumption; and

$\dot{q}_{ss,A}$, in Btu/h is the measured net capacity for test condition A.

3.4.11.2 Calculate the AWEF2 as follows:

$$AWEF2 = \frac{\dot{BL}}{\dot{E}_{ss,A} \cdot LF + \left(\dot{EF}_{comp,off} + \dot{E}_{cu,off}\right) \cdot (1 - LF)}$$

Where:

$\dot{E}_{ss,A}$, in W, is the measured system power input for test condition A; and

$\dot{E}_{cu,off}$, in W, is the condensing unit off-cycle power consumption, measured as described in section C3.5 of AHRI 1250–2020.

3.4.12 High-Temperature Matched Pairs or Single-Packaged Refrigeration Systems, Outdoor

3.4.12.1 Calculate Load Factor $LF(t_j)$ for outdoor temperature t_j as follows:

$$LF(t_j) = \frac{\dot{BL} + 3.412 \cdot \dot{EF}_{comp,off}}{\dot{q}_{ss}(t_j) + 3.412 \cdot \dot{EF}_{comp,off}}$$

Where:

$\dot{B}L$, in Btu/h, is the non-equipment-related box load calculated as described in section 3.3.3 of this appendix;

$\dot{E}F_{comp,off}$, in W, is the unit cooler off-cycle power consumption, equal to 0.1 times the unit cooler on-cycle power consumption; and

$\dot{q}_{ss}(t_j)$, in Btu/h, is the net capacity for outdoor temperature t_j, calculated as described in section 7.4.2 of AHRI 1250–2020.

3.4.12.2 Calculate the AWEF2 as follows:

$$AWEF2 = \frac{\sum_{i=1}^{n} \dot{B}L \cdot n_j}{\sum_{j=1}^{n} \left[\dot{E}_{ss}(t_j) \cdot LF(t_j) + \left(\dot{E}F_{comp,off} + \dot{E}_{cu,off}\right) \cdot \left(1 - LF(t_j)\right)\right] \cdot n_j}$$

Where:

$\dot{E}_{ss}(t_j)$, in W, is the system power input for temperature t_j, calculated as described in section 7.4.2 of AHRI 1250–2020;

$\dot{E}_{cu,off}$, in W, is the condensing unit off-cycle power consumption, measured as described in section C3.5 of AHRI 1250–2020; and

n_j are the hours for temperature bin j.

3.4.13 High-Temperature Unit Coolers Tested Alone

3.4.13.1 Calculate Refrigeration System Power Input as follows:

$$\dot{E}_{mix,rack} = \frac{\dot{q}_{mix,evap} + 3.412 \times \dot{E}F_{comp,on}}{EER} + \dot{E}F_{comp,on}$$

Where:

$\dot{q}_{mix,evap}$, in W, is the net evaporator capacity, measured as described in AHRI 1250–2020;

$\dot{E}F_{comp,on}$, in W, is the unit cooler on-cycle power consumption; and

EER, in W, equals

$$\begin{cases} 11 & if\ \dot{q}_{mix,evap} < 10{,}000\ Btu/h \\ 0.0007 \cdot \dot{q}_{mix,evap} + 4 & if\ 10{,}000 \leq \dot{q}_{mix,evap} \leq 20{,}000\ Btu/h \\ 18 & if\ 20{,}000 \leq \dot{q}_{mix,evap} \end{cases}$$

3.4.13.2 Calculate the load factor LF as follows:

$$LF = \frac{\dot{B}L + 3.412 \cdot \dot{E}F_{comp,off}}{\dot{q}_{mix,evap} + 3.412 \cdot \dot{E}F_{comp,off}}$$

Where:

$\dot{B}L$, in Btu/h, is the non-equipment-related box load calculated as described in section 3.3.3 of this appendix; and

$\dot{E}F_{comp,off}$, in W, is the unit cooler off-cycle power consumption, equal to 0.1 times the unit cooler on-cycle power consumption.

3.4.13.3 Calculate AWEF2 as follows:

$$AWEF2 = \frac{\dot{B}L}{\dot{E}_{mix,rack} \cdot LF + \dot{E}F_{comp,off} \cdot (1 - LF)}$$

3.4.14 CO_2 Unit Coolers Tested Alone

Calculate AWEF2 for CO_2 Unit Coolers Tested Alone using the calculations specified in in section 7.8 of AHRI 1250–2020 for calculation of AWEF2 for Unit Cooler Tested Alone.

3.5 Test Method

Test the Refrigeration System in accordance with AHRI 1250–2020 to determine refrigeration capacity and power input for the specified test conditions, with revisions and additions as described in this section.

3.5.1 Chamber Conditioning Using the Unit Under Test

In Appendix C, section C5.2.2 of AHRI 1250–2020, for applicable system configurations (matched pairs, single-packaged refrigeration systems, and standalone unit coolers), the unit under test may be used to aid in achieving the required test chamber conditions prior to beginning any steady state test. However, the unit under test must be inspected and confirmed to be free from frost before initiating steady state testing.

3.5.2 General Modification: Methods of Testing

3.5.2.1 Refrigerant Temperature Measurements

When testing a condensing unit alone, measure refrigerant liquid temperature leaving the condensing unit, and the refrigerant vapor temperature entering the condensing unit as required in section C7.5.1.1.2 of Appendix C of AHRI 1250–2020 using the same measurement approach specified for the unit cooler in section C3.1.3 of Appendix C of AHRI 1250–2020. In all cases in which thermometer wells or immersed sheathed sensors are prescribed, if the refrigerant tube outer diameter is less

than ½ inch, the refrigerant temperature may be measured using the average of two temperature measuring instruments with a minimum accuracy of ±0.5 °F placed on opposite sides of the refrigerant tube surface—resulting in a total of up to 8 temperature measurement devices used for the DX Dual Instrumentation method. In this case, the refrigerant tube shall be insulated with 1-inch thick insulation from a point 6 inches upstream of the measurement location to a point 6 inches downstream of the measurement location. Also, to comply with this requirement, the unit cooler/evaporator entering measurement location may be moved to a location 6 inches upstream of the expansion device and, when testing a condensing unit alone, the entering and leaving measurement locations may be moved to locations 6 inches from the respective service valves.

3.5.2.2 Mass Flow Meter Location

When using the DX Dual Instrumentation test method of AHRI 1250–2020, applicable for unit coolers, dedicated condensing units, and matched pairs, the second mass flow meter may be installed in the suction line as shown in Figure C1 of AHRI 1250–2020.

3.5.2.3 Subcooling at Refrigerant Mass Flow Meter

In section C3.4.5 of Appendix C of AHRI 1250–2020, when verifying subcooling at the mass flow meters, only the sight glass and a temperature sensor located on the tube surface under the insulation are required. Subcooling shall be verified to be within the 3 °F requirement downstream of flow meters located in the same chamber as a condensing unit under test and upstream of flow meters located in the same chamber as a unit cooler under test, rather than always downstream as indicated in AHRI 1250–2009, section C3.4.5. If the subcooling is less than 3 °F when testing a unit cooler, dedicated condensing unit, or matched pair (not a single-packaged system), cool the line between the condensing unit outlet and this location to achieve the required subcooling. When providing such cooling while testing a matched pair (a) set up the line-cooling system and also set up apparatus to heat the liquid line between the mass flow meters and the unit cooler, (b) when the system has achieved steady state without activation of the heating and cooling systems, measure the liquid temperature entering the expansion valve for a period of at least 30 minutes, (c) activate the cooling system to provide the required subcooling at the mass flow meters, (d) if necessary, apply heat such that the temperature entering the expansion valve is within 0.5 °F of the temperature measured during step (b), and (e) proceed with measurements once condition (d) has been verified.

3.5.2.4 Installation Instructions

Manufacturer installation instructions or installation instructions described in this section refer to the instructions that come packaged with or appear on the labels applied to the unit. This does not include online manuals.

Installation Instruction Hierarchy: If a given installation instruction provided on the label(s) applied to the unit conflicts with the installation instructions that are shipped with the unit, the label takes precedence. For testing of matched pairs, the installation instructions for the dedicated condensing unit shall take precedence. Setup shall be in accordance with the field installation instructions (laboratory installation instructions shall not be used). Achieving test conditions shall always take precedence over installation instructions.

3.5.2.5. Refrigerant Charging and Adjustment of Superheat and Subcooling.

All dedicated condensing systems (dedicated condensing units tested alone, matched pairs, and single packaged dedicated systems) that use flooding of the condenser for head pressure control during low-ambient-temperature conditions shall be charged, and superheat and/or subcooling shall be set, at Refrigeration C test conditions unless otherwise specified in the installation instructions.

If after being charged at Refrigeration C condition the unit under test does not operate at the Refrigeration A condition due to high pressure cut out, refrigerant shall be removed in increments of 4 ounces or 5 percent of the test unit's receiver capacity, whichever quantity is larger, until the unit operates at the Refrigeration A condition. All tests shall be run at this final refrigerant charge. If less than 0 °F of subcooling is measured for the refrigerant leaving the condensing unit when testing at B or C condition, calculate the refrigerant-enthalpy-based capacity (*i.e.*, when using the DX dual instrumentation, the DX calibrated box, or single-packaged unit refrigerant enthalpy method) assuming that the refrigerant is at saturated liquid conditions at the condensing unit exit.

All dedicated condensing systems that do not use a flooded condenser design shall be charged at Refrigeration A test conditions unless otherwise specified in the installation instructions.

If the installation instructions give a specified range for superheat, sub-cooling, or refrigerant pressure, the average of the range shall be used as the refrigerant charging parameter target and the test condition tolerance shall be ±50 percent of the range. Perform charging of near-azeotropic and zeotropic refrigerants only with refrigerant in the liquid state. Once the correct refrigerant charge is determined, all tests shall run until completion without further modification.

3.5.2.5.1. When charging or adjusting superheat/subcooling, use all pertinent instructions contained in the installation instructions to achieve charging parameters within the tolerances. However, in the event of conflicting charging information between installation instructions, follow the installation instruction hierarchy listed in section 3.5.2.4. Conflicting information is defined as multiple conditions given for charge adjustment where all conditions specified cannot be met. In the event of conflicting information within the same set of charging instructions (*e.g.,* the installation instructions shipped with the dedicated condensing unit), follow the hierarchy in Table 19 for priority. Unless the installation instructions specify a different charging tolerance, the tolerances identified in table 19 of this appendix shall be used.

TABLE 19—TEST CONDITION TOLERANCES AND HIERARCHY FOR REFRIGERANT CHARGING AND SETTING OF REFRIGERANT CONDITIONS

Priority	Fixed orifice		Expansion Valve	
	Parameter with installation instruction target	Tolerance	Parameter with installation instruction target	Tolerance
1	Superheat	±2.0 °F	Subcooling	10% of the Target Value; No less than ±0.5 °F, No more than ±2.0 °F
2	High Side Pressure or Saturation Temperature*.	±4.0 psi or ±1.0 °F	High Side Pressure or Saturation Temperature*.	±4.0 psi or ±1.0 °F
3	Low Side Pressure or Saturation Temperature*.	±2.0 psi or ±0.8 °F	Superheat	±2.0 °F
4	Low Side Temperature	±2.0 °F	Low Side Pressure or Saturation Temperature*.	±2.0 psi or ±0.8 °F
5	High Side Temperature	±2.0 °F	Approach Temperature	±1.0 °F
6	Charge Weight	±2.0 oz	Charge Weight	0.5% or 1.0 oz, whichever is greater

*Saturation temperature can refer to either bubble or dew point calculated based on a measured pressure, or a coil temperature measurement, as specified by the installation instructions.

3.5.2.5.2. *Dedicated Condensing Unit.*

If the Dedicated Condensing Unit includes a receiver and the subcooling target leaving the condensing unit provided in installation instructions cannot be met without fully filling the receiver, the subcooling target shall be ignored. Likewise, if the Dedicated Condensing unit does not include a receiver and the subcooling target leaving the condensing unit cannot be met without the unit cycling off on high pressure, the subcooling target can be ignored. Also, if no instructions for charging or for setting subcooling leaving the condensing unit are provided in the installation instructions, the refrigeration system shall be set up with a charge quantity and/or exit subcooling such that the unit operates during testing without shutdown (*e.g.,* on a high-pressure switch) and operation of the unit is otherwise consistent with the requirements of the test procedure of this appendix and the installation instructions.

3.5.2.5.3. *Unit Cooler.* Use the shipped expansion device for testing. Otherwise, use the expansion device specified in the installation instructions. If the installation instructions specify multiple options for the expansion device, any specified expansion device may be used. The supplied expansion device shall be adjusted until either the superheat target is met, or the device reaches the end of its adjustable range. In the event the device reaches the end of its adjustable range and the super heat target is not met, test with the adjustment at the end of its range providing the closest match to the superheat target, and the test condition tolerance for super heat target shall be ignored. The measured superheat is not subject to a test operating tolerance. However, if the evaporator exit condition is used to determine capacity using the DX dual instrumentation method or the refrigerant enthalpy method, individual superheat value measurements may not be equal to or less than zero. If this occurs, or if the operating tolerances of measurements affected by expansion device fluctuation are exceeded, the expansion device shall be replaced, operated at an average superheat value higher than the target, or both, in order to avoid individual superheat value measurements less than zero and/or to meet the required operating tolerances.

3.5.2.5.4. *Single-Packaged Unit.* Unless otherwise directed by the installation instructions, install one or more refrigerant line pressure gauges during the setup of the unit, located depending on the parameters used to verify or set charge, as described in this section:

3.5.2.5.4.1. Install a pressure gauge in the liquid line if charging is on the basis of subcooling, or high side pressure or corresponding saturation or dew point temperature.

3.5.2.5.4.2. Install a pressure gauge in the suction line if charging is on the basis of superheat, or low side pressure or corresponding saturation or dew point temperature. Install this gauge as close to the evaporator as allowable by the installation instructions and the physical constraints of the unit. Use methods for installing pressure gauge(s) at the required location(s) as indicated in the installation instructions if specified.

3.5.2.5.4.3. If the installation instructions indicate that refrigerant line pressure gauges should not be installed and the unit fails to operate due to high-pressure or low-pressure compressor cut off, then a charging port shall be installed, and the unit shall be evacuated of refrigerant and charged to the nameplate charge.

3.5.2.6 Ducted Units

For systems with ducted evaporator air, or that can be installed with or without ducted evaporator air: Connect ductwork on both the inlet and outlet connections and determine external static pressure (ESP) as described in sections 6.4 and 6.5 of ANSI/ASHRAE 37. Use pressure measurement instrumentation as described in section 5.3.2 of ANSI/ASHRAE 37. Test at the fan speed specified in the installation instructions—if there is more than one fan speed setting and the installation instructions do not specify which speed to use, test at the highest speed. Conduct tests with the ESP equal to 50% of the maximum ESP allowed in the installation instructions, within a tolerance of −0.00/+0.05 inches of water column. If the installation instructions do not provide the maximum ESP, the ESP shall be set for testing such that the air volume rate is ⅔ of the air volume rate measured when the ESP is 0.00 inches of water column within a tolerance of −0.00/+0.05 inches of water column.

If testing using either the indoor or outdoor air enthalpy method to measure the air volume rate, adjust the airflow measurement apparatus fan to set the external static pressure—otherwise, set the external static pressure by symmetrically restricting the outlet of the test duct. In case of conflict, these requirements for setting airflow take precedence over airflow values specified in manufacturer installation instructions or product literature.

3.5.2.7. Two-Speed or Multiple-Speed Evaporator Fans. Two-Speed or Multiple-Speed evaporator fans shall be considered to meet the qualifying control requirements of section C4.2 of Appendix C of AHRI 1250–2020 for measuring off-cycle fan energy if they use a fan speed no less than 50% of the speed used in the maximum capacity tests.

3.5.2.8. Defrost

Use section C10.2.1 of Appendix C of AHRI 1250–2020 for defrost testing. The Test Room Conditioning Equipment requirement of section C10.2.1.1 of Appendix C of AHRI 1250–2020 does not apply.

3.5.2.8.1 Adaptive Defrost

When testing to certify compliance to the energy conservation standards, use $N_{DF} = 4$, as instructed in section C10.2.1.7 or C10.2.2.1 of AHRI 1250–2020. When determining the represented value of the calculated benefit for the inclusion of adaptive defrost, use $N_{DF} = 2.5$, as instructed in section C10.2.1.7 or C10.2.2.1 of AHRI 1250–2020.

3.5.2.8.2 Hot Gas Defrost

When testing to certify compliance to the energy conservation standards, remove the hot gas defrost mechanical components and disconnect all such components from electrical power. Test the units as if they are electric defrost units, but do not conduct the defrost tests described in section C10.2.1 of AHRI 1250–2020. Use the defrost heat and power consumption values as described in section C10.2.2 of AHRI 1250–2020 for the AWEF2 calculations.

3.5.2.9 Dedicated condensing units that are not matched for testing and are not single-packaged dedicated systems.

The temperature measurement requirements of sections C3.1.3 and C4.1.3.1 appendix C of AHRI 1250–2020 shall apply only to the condensing unit exit rather than to the unit cooler inlet and outlet, and they shall be applied for two measurements when using the DX Dual Instrumentation test method.

3.5.2.10. Single-packaged dedicated systems

Use the test method in section C9 of appendix C of AHRI 1250–2020 (including the applicable provisions of ASHRAE 16–2016, ASHRAE 23.1–2010, ASHRAE 37–2009, and ASHRAE 41.6–2014, as referenced in section C9.1 of AHRI 1250–2020) as the method of test for single-packaged dedicated systems, with modifications as described in this section. Use two test methods listed in table 20 of this appendix to calculate the net capacity and power consumption. The test method listed with a lower ''Hierarchy Number'' and that has ''Primary'' as an allowable use in table 20 of this appendix shall be considered the primary measurement and used as the net capacity.

TABLE 20—SINGLE-PACKAGED METHODS OF TEST AND HIERARCHY

Hierarchy number	Method of test	Test hierarchy
1	Balanced Ambient Indoor Calorimeter	Primary.
2	Indoor Air Enthalpy	Primary or Secondary.
3	Indoor Room Calorimeter	Primary or Secondary.
4	Calibrated Box	Primary or Secondary.
5	Balanced Ambient Outdoor Calorimeter	Secondary.
6	Outdoor Air Enthalpy	Secondary.
7	Outdoor Room Calorimeter	Secondary.
8	Single-Packaged Refrigerant Enthalpy [1]	Secondary.

TABLE 20—SINGLE-PACKAGED METHODS OF TEST AND HIERARCHY—Continued

Hierarchy number	Method of test	Test hierarchy
9	Compressor Calibration	Secondary.

Notes:
[1] See description of the single-packaged refrigerant enthalpy method in section 3.5.2.10.1 of this appendix.

3.5.2.10.1 Single-Packaged Refrigerant Enthalpy Method

The single-packaged refrigerant enthalpy method shall follow the test procedure of the DX Calibrated Box method in AHRI 1250–2020, appendix C, section C8 for refrigerant-side measurements with the following modifications:

3.5.2.10.1.1 Air-side measurements shall follow the requirements of the primary single-packaged method listed in table 20 of this appendix. The air-side measurements and refrigerant-side measurements shall be collected over the same intervals.

3.5.2.10.1.2 A preliminary test at Test Rating Condition A is required using the primary method prior to any modification necessary to install the refrigerant-side measuring instruments. Install surface mount temperature sensors on the evaporator and condenser coils at locations not affected by liquid subcooling or vapor superheat (i.e., near the midpoint of the coil at a return bend), entering and leaving the compressor, and entering the expansion device. These temperature sensors shall be included in the regularly recorded data.

3.5.2.10.1.3 After the preliminary test is completed, the refrigerant shall be removed from the equipment and the refrigerant-side measuring instruments shall be installed. The equipment shall then be evacuated and recharged with refrigerant. Once the equipment is operating at Test Condition A, the refrigerant charge shall be adjusted until, as compared to the average values from the preliminary test, the following conditions are achieved:

(a) Each on-coil temperature sensor indicates a reading that is within ±1.0 °F of the measurement in the initial test,

(b) The temperatures of the refrigerant entering and leaving the compressor are within ±4 °F, and

(c) The refrigerant temperature entering the expansion device is within ±1 °F.

3.5.2.10.1.4 Once these conditions have been achieved over an interval of at least 10 minutes, refrigerant charging equipment shall be removed and the official tests shall be conducted.

3.5.2.10.1.5 The lengths of liquid line to be added shall be 5 feet maximum, not including the requisite flow meter. This maximum length applies to each circuit separately.

3.5.2.10.1.6 Use section C9.2 of appendix C of AHRI 1250–2020 for allowable refrigeration capacity heat balance. Calculate the single-packaged refrigerant enthalpy (secondary) method test net capacity $\dot{Q}_{net,secondary}$ as follows: $\dot{Q}_{net,secondary} = \dot{Q}_{ref\text{-}3.412} \cdot \dot{EF}_{comp,on} - \dot{Q}_{sploss}$

Where:

$\dot{Q}_{ref}$ is the gross capacity;

$\dot{EF}_{comp,on}$ is the evaporator compartment on-cycle power, including evaporator fan power; and

$\dot{Q}_{sploss}$ is a duct loss calculation applied to the evaporator compartment of the single-packaged systems, which is calculated as indicated in the following equation.

$$\dot{Q}_{sploss} = UA_{cond} \times (T_{evapside} - T_{condside}) + UA_{amb} \times (T_{evapside} - T_{amb})$$

Where:

UA_{cond} and UA_{amb} are, for the condenser/evaporator partition and the evaporator compartment walls exposed to ambient air, respectively, the product of the overall heat transfer coefficient and surface area of the unit as manufactured, *i.e.* without external insulation that might have been added during the test. The areas shall be calculated based on measurements, and the thermal resistance values shall be based on insulation thickness and insulation material;

$T_{evapside}$ is the air temperature in the evaporator compartment—the measured evaporator air inlet temperature may be used;

$T_{condside}$ is the air temperature in the condenser compartment—the measured chamber ambient temperature may be used, or a measurement may be made using a temperature sensor placed inside the condenser box at least 6 inches distant from any part of the refrigeration system; and

T_{amb} is the air temperature outside the single-packaged system.

3.5.2.10.1.7 For multi-circuit single-packaged systems utilizing the single-packaged refrigerant enthalpy method, apply the test method separately for each circuit and sum the separately-calculated refrigerant-side gross refrigeration capacities.

3.5.2.10.2 Calibrated Box Test Procedure

3.5.2.10.2.1 Measurements. Refer to section C3 of AHRI 1250–2020 (including the applicable provisions of ASHRAE 41.1–2013, ASHRAE 41.3–2014, and ASHRAE 41.10–2013, as referenced in section C3 of AHRI 1250–2020) for requirements of air-side and refrigerant-side measurements.

3.5.2.10.2.2 Apparatus setup for Calibrated Box Calibration and Test. Refer to section C5 of AHRI 1250–2020 and section C8 of AHRI 1250–2020 for specific test setup.

3.5.2.10.2.3 The calibrated box shall be installed in a temperature-controlled enclosure in which the temperature can be maintained at a constant level. When using the calibrated box method for Single-Packaged Dedicated Systems, the enclosure air temperature shall be maintained such that the condenser air entering conditions are as specified for the test.

3.5.2.10.2. The temperature-controlled enclosure shall be of a size that will provide clearances of not less than 18 in at all sides, top and bottom, except that clearance of any one surface may be reduced to not less than 5.5 inches.

3.5.2.10.2.5 The heat leakage of the calibrated box shall be noted in the test report.

3.5.2.10.2.6 Refrigerant lines within the calibrated box shall be well insulated to avoid appreciable heat loss or gain.

3.5.2.10.2.7 Instruments for measuring the temperature around the outside of the calibrated box to represent the enclosure temperature T_{en} shall be located at the center of each wall, ceiling, and floor. Exception: in the case where a clearance around the outside of the calibrated box, as indicated in section 3.5.2.10.2.4 of this appendix, is reduced to less than 18 inches, the number of temperature measuring devices on the outside of that surface shall be increased to six, which shall be treated as a single temperature to be averaged with the temperature of each of the other five surfaces. The six temperature measuring instruments shall be located at the center of six rectangular sections of equal area. If the refrigeration system is mounted at the location that would cover the center of the face on which it is mounted, up to four temperature measurements shall be used on that face to represent its temperature. Each sensor shall be aligned with the center of the face's nearest outer edge and centered on the distance between that edge and the single-packaged unit (this is illustrated in figure C5 of this section when using surface temperature sensors), and they shall be treated as a single temperature to be averaged with the temperature of each of the other five surfaces. However, any of these sensors shall be omitted if either (a) the distance between the outer edge and the single-packaged unit is less than one foot or (b) if the sensor location would be within two feet of any of the foot square surfaces discussed in section 3.5.2.10.2.8 of this appendix representing a warm discharge air impingement area. In this case, the remaining sensors shall be used to represent the average temperature for the surface.

3.5.2.10.2.8 One of the following two approaches shall be used for the box external temperature measurement. Box calibration and system capacity measurement shall both be done using the same one of these approaches. 1: Air temperature sensors. Each temperature sensor shall be at a distance of 6 inches from the calibrated box. If the clearance from a surface of the box (allowed for one surface only) is less than 12 inches, the temperature measuring instruments shall be located midway between the outer wall of the calibrated box and the adjacent surface. 2: Surface temperature sensors. Surface temperature sensors shall be mounted on the calibrated box surfaces to represent the enclosure temperature, T_{en}.

3.5.2.10.2.9 Additional surface temperature sensors may be used to measure external hot spots during refrigeration system

testing. If this is done, two temperature sensors shall be used to measure the average temperature of the calibrated box surface covered by the condensing section—they shall be located centered on equal-area rectangles comprising the covered calibrated box surface whose common sides span the short dimension of this surface. Additional surface temperature sensors may be used to measure box surfaces on which warm condenser discharge air impinges. A pattern of square surfaces measuring one foot square shall be mapped out to represent the hot spot upon which the warm condenser air impinges. One temperature sensor shall be used to measure surface temperature at the center of each square (see figure C5 of this section). A drawing showing this pattern and identifying the surface temperature sensors shall be provided in the test report. The average surface temperature of the overall calibrated box outer surface during testing shall be calculated as follows.

$$T_{en} = \frac{\sum_{i=1}^{6} A_i T_i + \sum_{j=1}^{2} A_j \left(T'_j - T_1\right) + \sum_{k=1}^{n} A_k \left(T''_k - T_1\right)}{\sum_{i=1}^{6} A_i}$$

Where:

A_i is the surface area of the ith of the six calibrated box surfaces;

T_i is the average temperature measured for the ith surface;

A_j is half of the surface area of the calibrated box covered by the condensing section;

T'_j is the jth of the two temperature measurements underneath the condensing section;

T_1 is the average temperature of the four or fewer measurements representing the temperature of the face on which the single-packaged system is mounted, prior to adjustments associated with hot spots based on measurements T_j and/or T_k;

A_k is the area of the kth of n 1-square-foot surfaces used to measure the condenser discharge impingement area hot spot; and,

T''_k is the kth of the n temperature measurements of the condenser discharge impingement area hot spot.

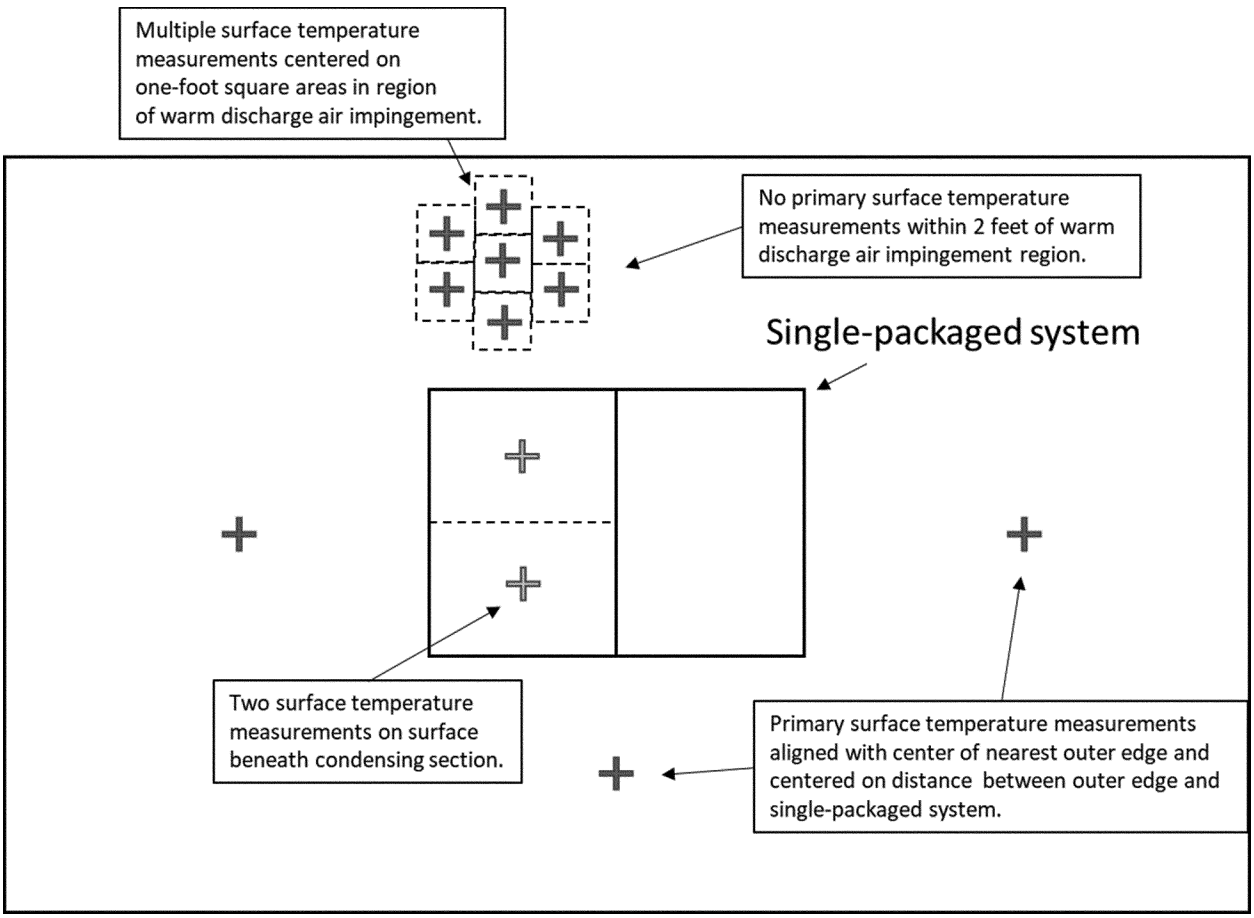

Figure C5: Illustration of Layout of Surface Temperature Sensors on Face of Calibrated Box on which Single-Packaged Dedicated System is Mounted when Using Section 3.5.2.10.2.7 of Appendix C to this Part.3.5.2.10.2.10 Heating means inside the calibrated box shall be shielded or installed in a manner to avoid radiation to the Single-Packaged Dedicated System, the temperature measuring instruments, and to the walls of the box. The heating means shall be constructed to avoid stratification of temperature, and suitable means shall be provided for distributing the temperature uniformly.

3.5.2.10.2.11 The average air dry-bulb temperature in the calibrated box during Single-Packaged Dedicated System tests and calibrated box heat leakage tests shall be the average of eight temperatures measured at the corners of the box at a distance of 2 inches to 4 inches from the walls. The instruments shall be shielded from any cold or warm surfaces except that they shall not be shielded from the adjacent walls of the box. The Single-Packaged Dedicated System under test shall be mounted such that the

temperature instruments are not in the direct air stream from the discharge of the Single-Packaged Dedicated System.

3.5.2.10.2.12 Calibration of the Calibrated Box. Calibration of the Calibrated Box shall occur prior to installation of the Single-Packaged Dedicated System. This shall be done either (a) prior to cutting the opening needed to install the Single-Packaged Dedicated System, or (b) with an insulating panel with the same thickness and thermal resistance as the box wall installed in the opening intended for the Single-Packaged Dedicated System installation. Care shall be taken to avoid thermal shorts in the location of the opening either during calibration or during subsequent installation of the Single-Packaged Dedicated System. A calibration test shall be made for air movements comparable to those expected for Single-Packaged Dedicated System capacity measurement, *i.e.,* with air volume flow rate within 10 percent of the air volume flow rate of the Single-Packaged Dedicated System evaporator.

3.5.2.10.2.13 The heat input shall be adjusted to maintain an average box temperature not less than 25.0 °F above the test enclosure temperature.

3.5.2.10.2.14 The average dry-bulb temperature inside the calibrated box shall not vary more than 1.0 °F over the course of the calibration test.

3.5.2.10.2.15 A calibration test shall be the average of 11 consecutive hourly readings when the box has reached a steady-state temperature condition.

3.5.2.10.2.16 The box temperature shall be the average of all readings after a steady-state temperature condition has been reached.

3.5.2.10.2.17 The calibrated box has reached a steady-state temperature condition when: The average box temperature is not less than 25 °F above the test enclosure temperature. Temperature variations do not exceed 5.0 °F between temperature measuring stations. Temperatures do not vary by more than 2 °F at any one temperature-measuring station.

3.5.2.10.2.18 Data to be Measured and Recorded. Refer to Table C5 in section C6.2 of AHRI 1250–2020 for the required data that need to measured and recorded.

3.5.2.10.2.19 Refrigeration Capacity Calculation.

The heat leakage coefficient of the calibrated box is calculated by

$$K_{cb} = \frac{3.412 \times \dot{E}_c}{T_{en} - T_{cb}}$$

For each Dry Rating Condition, calculate the Net Capacity:

$\dot{q}_{ss} = K_{cb}\,(T_{en} - T_{cb}) + 3.412 \times \dot{E}_c$

3.5.2.10.3 Detachable single-packaged systems shall be tested as single-packaged dedicated refrigeration systems.

3.5.2.11 *Variable-Capacity and Multiple-Capacity Dedicated Condensing Refrigeration Systems*

3.5.2.11.1 Manufacturer-Provided Equipment Overrides

Where needed, the manufacturer must provide a means for overriding the controls of the test unit so that the compressor(s) operates at the specified speed or capacity and the indoor blower operates at the speed consistent with the compressor operating level as would occur without override.

3.5.2.11.2 Compressor Operating Levels

For variable-capacity and multiple-capacity compressor systems, the minimum capacity for testing shall be the minimum capacity that the system control would operate the compressor in normal operation. Likewise, the maximum capacity for testing shall be the maximum capacity that the system control would operate the compressor in normal operation. For variable-speed compressor systems, the intermediate speed for testing shall be the average of the minimum and maximum speeds. For digital compressor systems, the intermediate duty cycle shall be the average of the minimum and maximum duty cycles. For multiple-capacity compressor systems with three capacity levels, the intermediate operating level for testing shall be the middle capacity level. For multiple-capacity compressor systems with more than three capacity levels, the intermediate operating level for testing shall be the level whose displacement ratio is closest to the average of the maximum and minimum displacement ratios.

3.5.2.11.3 Refrigeration Systems with Digital Compressor(s)

Use the test methods described in section 3.5.2.10.1 of this appendix as the secondary method of test for refrigeration systems with digital compressor(s) with modifications as described in this section. The Test Operating tolerance for refrigerant mass flow rate and suction pressure in Table 2 of AHRI 1250–2020 shall be ignored. Temperature and pressure measurements used to calculate shall be recorded at a frequency of once per second or faster and based on average values measured over the 30-minute test period.

3.5.2.11.3.1 For Matched pair (not including single-packaged systems) and Dedicated Condensing Unit refrigeration systems, the preliminary test in sections 3.5.2.10.1.2 and 3.5.2.10.1.3 of this appendix is not required. The liquid line and suction line shall be 25 feet ± 3 inches, not including the requisite flow meters. Also, the term in the equation to calculate net capacity shall be set equal to zero.

3.5.2.11.3.2 For Dedicated Condensing Unit refrigeration systems, the primary capacity measurement method shall be balanced ambient outdoor calorimeter, outdoor air enthalpy, or outdoor room calorimeter.

[FR Doc. 2023–08128 Filed 5–3–23; 8:45 am]

BILLING CODE 6450–01–P

FEDERAL REGISTER

Vol. 88 Thursday,

No. 86 May 4, 2023

Part IV

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Slickspot Peppergrass (Lepidium papilliferum); Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R1–ES–2010–0071; FF09E21000 FXES1111090FEDR 223]

RIN 1018–BE61

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Slickspot Peppergrass (Lepidium papilliferum)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service or USFWS), finalize the designation of critical habitat for slickspot peppergrass (*Lepidium papilliferum*) under the Endangered Species Act of 1973 as amended (Act). In total, approximately 31,569 hectares (78,009 acres) in Ada, Elmore, Gem, Payette, and Owyhee Counties in Idaho fall within the boundaries of the final critical habitat designation. The effect of this final rule is to designate critical habitat for the slickspot peppergrass, which is a threatened species under the Act.

DATES: This rule is effective June 5, 2023.

ADDRESSES: This final rule is available on the internet at *https://www.regulations.gov,* under Docket No. FWS–R1–ES–2010–0071, and at *https://www.fws.gov/species/slickspot-peppergrass-lepidium-papilliferum.* 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* under Docket No. FWS–R1–ES–2010–0071.

The coordinates or plot points or both from which the maps are generated are included in the decision file for this critical habitat designation and are available at *https://www.regulations.gov,* under Docket No. FWS–R1–ES–2010–0071, and at *https://www.fws.gov/species/slickspot-peppergrass-lepidium-papilliferum.* Additional supporting information that we developed for this critical habitat designation will be available on the Service's website (*https://www.fws.gov/species/slickspot-peppergrass-lepidium-papilliferum*), at *https://www.regulations.gov,* or both.

FOR FURTHER INFORMATION CONTACT: Lisa Ellis, State Supervisor, U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office, 1387 S Vinnell Way, Room 368, Boise, ID 83709; telephone 208–378–5243. 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. 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 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 only by issuing a rule through the Administrative Procedure Act rulemaking process. We reinstated slickspot peppergrass as a threatened species under the Act effective September 16, 2016 (81 FR 55058, August 17, 2016), published an updated revised proposed rule to designate critical habitat on July 23, 2020 (85 FR 44584), and are now finalizing our designation of critical habitat for the species.

What this rule does. This final rule designates critical habitat for slickspot peppergrass on approximately 31,569 hectares (ha) (78,009 acres (ac)) in Ada, Elmore, Gem, Payette, and Owyhee Counties in Idaho.

The basis for our action. Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary) to designate critical habitat concurrent with listing to the maximum extent prudent and determinable. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographic 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 geographic 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. Also, under section 4(b)(2) of the Act, the Secretary may exclude an area from critical habitat if she determines that the benefits of such an exclusion outweigh the benefits of specifying such areas as part of 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.

The critical habitat we are designating in this rule, consisting of four units and seven subunits comprising 31,569 ha (78,009 ac) for slickspot peppergrass, constitutes our current best assessment of the areas that meet the definition of critical habitat for the species.

Economic analysis. In order to consider economic impacts, we previously prepared an analysis of the economic impacts of the proposed critical habitat designation and related factors. The final economic analysis, completed March 12, 2012, was based on the 2011 proposed critical habitat and concluded that critical habitat designation would not likely affect levels of economic activity or conservation measures being implemented within the proposed critical habitat area. The final economic analysis is available at *https://www.regulations.gov* under the docket number for this rulemaking, which is FWS–R1–ES–2010–0071.

Previous Federal Actions

On December 7, 2009, slickspot peppergrass was listed as a threatened species throughout its range (74 FR 52014, October 8, 2009). On May 10, 2011, we published a proposed rule to designate critical habitat for slickspot peppergrass (76 FR 27184). On August 8, 2012, the District Court of Idaho vacated the final rule listing slickspot peppergrass as a threatened species under the Act and remanded the rule to the Service for further consideration consistent with the Court's opinion (*Gov. C.L.* ''*Butch*'' *Otter, et al.* v. *Ken Salazar, et al.,* Case No. 1:11–cv–00358–CWD [D. Idaho]). On February 12, 2014, we concurrently proposed reinstatement of threatened status for the species and a revised proposed designation of critical habitat (79 FR 8416 and 79 FR 8402, respectively). On August 17, 2016, we published a final rule reinstating threatened status for the species under the Act (81 FR 55058). On July 23, 2020, we published an updated revised proposed rule to designate critical habitat (85 FR 44584).

Summary of Changes From the Proposed Rule

Our July 23, 2020, revised proposed critical habitat rule (85 FR 44584) detailed changes from the previous

proposed and revised critical habitat rules (76 FR 27184, May 10, 2011; 79 FR 8402, February 12, 2014). Here, we summarize changes from our July 23, 2020, proposed rule (85 FR 44584) to this final rule resulting from the comments we received during the public comment period, as discussed below under Summary of Comments and Recommendations.

1. We added six new Element Occurrences (EOs) (recorded species locations) that were occupied at the time of listing but had not been evaluated in our proposed rule for physical or biological features (PBFs) essential to the conservation of the species. For this final rule, we determined that these six EOs contained one or more PBFs. See the Criteria and Methodology Used To Identify Critical Habitat section, below, for details.

2. In our proposed rule, we did not include E.O. 57 based on surveys that indicated it did not meet our PBF criteria. However, we re-evaluated the PBFs for E.O. 57 and determined that it contained one or more PBFs; therefore, we are including it in our final critical habitat designation. See the Criteria and Methodology Used to Identify Critical Habitat section, below, for details.

3. We included D-ranked EOs, which represent the lowest ranked occupied EOs. The E.O. alphabetical ranking system measures viability of a species or ecological integrity of the community and was developed by NatureServe (2002, 2020*b*). The Idaho Department of Fish and Game (IDFG) uses this system, and we relied on IDFG rankings to determine if EOs contained one or more PBFs. Our rationale for including D-ranked EOs is provided in the section Criteria and Methodology Used to Identify Critical Habitat, below.

4. We increased the buffer around EOs from 250 meters (m) (820 feet (ft)) to 500 m (1,640 ft). This increase is based on foraging distances of most of the important pollinators of slickspot peppergrass instead of using the foraging distance of a single pollinator (solitary bee), which was how we determined the buffer size in our proposed rule. We provided additional citations on foraging distances of the other pollinator species to support this increase in the section Physical or Biological Features Essential to the Conservation of the Species, below.

5. We excluded approximately 2,736 ha (6,761 ac) of State of Idaho land and 4,508 ha (11,141 ac) of private and municipal (county and city) land from our critical habitat designation under section 4(b)(2) of the Act, as detailed in Considerations of Impacts under Section 4(b)(2) of the Act, below.

6. We clarified our description of the PBFs to provide more context but did not change their meaning. A description of PBFs is in the section Physical or Biological Features Essential to the Conservation of the Species with additional discussion provided under Criteria and Methodology Used to Identify Critical Habitat, below.

7. We deleted ''honeybees'' from our description of PBF 4 under the *Summary of Essential Physical or Biological Features* and from paragraph (2)(iv) of the rule. Please see Physical or Biological Features Essential to the Conservation of the Species for additional information and citations.

8. We made small, nonsubstantive clarifications and corrections throughout this final rule to ensure consistency, clarify information, reduce redundancy, update scientific names of plants, and update or add new references.

The combined effect of the changes we have made from our July 23, 2020, proposed rule (85 FR 44584) to this final rule result in an increase from a proposed designation of critical habitat of 17,049 ha (42,129 ac) to a final designation of critical habitat of approximately 31,569 ha (78,009 ac). The reasons for this increase are mentioned in the list above and explained more thoroughly in the following sections of the preamble.

Supporting Documents

In 2011, we sought comments from five independent specialists to ensure that our proposed critical habitat designation was based on scientifically sound data and analyses regarding the 2011 proposed rule. We received responses from three of the individuals. In 2020, we completed a species status assessment (SSA) report for slickspot peppergrass. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species.

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we sought peer review of the SSA report. In August 2018, we solicited expert opinion and received responses from four independent specialists with scientific expertise on slickspot peppergrass and its habitat regarding our draft SSA report. The purpose of peer review is to ensure that our critical habitat designations are based on scientifically sound data, assumptions, and analyses. The peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions to improve the SSA report. That information was incorporated into the final SSA that informed our proposed and final designation of critical habitat. We also considered all comments and information we received from the public during comment periods for previous proposals (76 FR 27184, May 10, 2011; 79 FR 8402, February 12, 2014; 85 FR 44584, July 23, 2020).

The final economic analysis (dated March 12, 2012), which documents the potential economic effects of the designation, considered all public comments and any new information as of 2011 (IEc 2012).

The final SSA report (USFWS 2020) and final economic analysis (IEc 2012) are available at *https://www.regulations.gov* under Docket No. FWS–R1–ES–2010–0071.

Summary of Comments and Recommendations

In our revised proposed rule published on July 23, 2020 (85 FR 44584), we requested that all interested parties submit written comments on the proposal by September 21, 2020. We also stated in the July 23, 2020, revised proposed rule (85 FR 44584) that comments submitted during the previous comment periods for the May 10, 2011, proposed rule (76 FR 27184) and the February 12, 2014, revised proposed rule (79 FR 8402) would be considered. For all comment periods, we reached out to appropriate Federal and State agencies, Tribes, scientific experts and organizations, and other interested parties and inviting them to comment on the proposal. Newspaper legal notices requesting public comments were published in the Idaho Statesman. We did not receive any requests for a public hearing during any of our comment periods.

During the first comment period (76 FR 27184, May 10, 2011), we received 16 comment letters addressing the proposed critical habitat designation for slickspot peppergrass. Of these comments, 3 were from peer reviewers and 13 were from public organizations or individuals. During the second comment period (79 FR 8402, February 12, 2014), we received 17 comment letters addressing the proposed critical habitat designation or the draft economic analysis. For the most recent comment period (85 FR 44584, July 23, 2020), we received 23 comment letters on the proposed rule to designate

critical habitat for slickspot peppergrass; the majority of commenters supported the designation of critical habitat. All substantive information provided during these comment periods was either incorporated directly into this final rule or is addressed below. Comments that we incorporated as changes in our revised proposed rules (79 FR 8402, February 12, 2014; 85 FR 44584, July 23, 2020) or into this final rule are not presented here or are addressed briefly. In addition, we received comments outside the scope of this rulemaking action such as comments related to threats (*e.g.,* livestock grazing, wildfire, Owyhee harvester ants, nonnative invasive plants, inadequate management practices, pesticides, and off-road vehicle use), conservation measures identified in conservation plans (CCA, State of Idaho et al. 2006; CA, BLM 2014; INRMP, U.S. Air Force 2017), and management actions, or the lack thereof, that commenters believed were a threat to the conservation of slickspot peppergrass; we did not respond to comments that were outside the scope of this rulemaking. Comments regarding threats have been addressed in the slickspot peppergrass final listing rule (74 FR 52014, October 8, 2009), the reinstatement of the listing rule (81 FR 55058, August 17, 2016), and the SSA (USFWS 2020). We consolidated the comments by topic and provide a brief response, below.

Peer Reviewer Comments

We solicited expert opinion in 2011 from five appropriate and independent specialists regarding the May 10, 2011, proposed rule (76 FR 27184). We received input from three of the individuals. Since that time, we have implemented a standard practice of developing an SSA as the scientific foundation to inform our section 4 rulemaking (*e.g.,* listing determinations and recovery plans). In 2018, we initiated the development of an SSA for slickspot peppergrass, and in August 2018, we solicited expert opinion from four independent specialists with scientific expertise on slickspot peppergrass and its habitat regarding our draft SSA report. These four individuals generally concurred with the information and conclusions in the draft SSA report, including our use of data from the Idaho Department of Fish and Game (IDFG) (Kinter and Miller 2016, entire). These data were used extensively in the development of the SSA and in our proposed and final critical habitat rules. Peer review comments are incorporated into the SSA report and this final rule as appropriate.

Comment 1: One peer reviewer and several commenters expressed concern that the proposed designation of critical habitat did not include D-ranked EOs, (representing the lowest quality extant slickspot peppergrass EOs). The reviewer stated that higher ranked EOs are likely more important to the conservation of slickspot peppergrass; however, the omission of the smaller EOs (which could be ranked lower) from the designation fails to recognize that these populations may harbor genetic variation important to the overall genetic variability of the species. This peer reviewer added that given the prospect of climate change and the continued deterioration of slickspot peppergrass habitat, maintaining and protecting the highest possible levels of genetic diversity may prove important to the long-term survival of the species. Another peer reviewer agreed that several EOs should be added to critical habitat.

Our Response: After careful consideration of the comments, we are adding D-ranked EOs to our critical habitat designation for this final rule. We present our rationale for adding D-ranked EOs in the Criteria and Methodology Used to Identify Critical Habitat section, below.

Comment 2: One peer reviewer recommended that we include at least a 250-m (820-ft) area surrounding slickspot peppergrass habitat to ensure that pollinators are able to maintain their populations. In addition, multiple commenters disagreed with information in the proposed rule (85 FR 44584, July 23, 2020) regarding using a 250-m (820-ft) pollinator buffer to reflect a ''reasonable mid-point'' for the foraging range of a solitary bee when the actual mid-point of the range cited in the proposed rule was 375 m (1,230 ft). Several commenters indicated that a larger buffer (*e.g.,* 600-m buffer) would be necessary to include all potential pollinators that might benefit slickspot peppergrass. Conversely, one commenter stated that we should use the shortest flight distance (150 m (492 ft)) of a solitary bee cited in the proposed rule. Another commenter questioned our use of scientific literature (*i.e.,* Steffan-Dewenter et al. 2002; Gathmann and Tscharntke 2002) that used research on solitary bees from study plots in Germany to extrapolate to solitary bees in southern Idaho. They went on to say that these cited works are not proven to be relevant to the sagebrush steppe where slickspot peppergrass is found and, therefore, not the ''best science'' relevant to the species.

Our Response: After considering comments and reviewing additional literature, we determined that increasing the buffer around occupied EOs is appropriate. To ensure habitat of sufficient quantity and quality is available to support nesting and egg laying, feeding, and reproduction of slickspot peppergrass's pollinators, we increased the buffer around each EO from 250 m (820 ft) to 500 m (1,640 ft) based on our consideration of the foraging ranges of all important pollinators of slickspot peppergrass and not solely on the foraging range of a medium-sized solitary bee. Additional information and citations to support this increase in the buffer can be found in the section, Physical or Biological Features Essential to the Conservation of the Species, below.

Regarding our use of peer-reviewed literature based on research conducted in Germany, we used the best available scientific information on pollinator foraging ranges. Although the studies were conducted in Germany and not in sagebrush-steppe habitat, the information pertained to flight distances based on bee body size, which we can extrapolate to similarly sized bees occurring in sagebrush-steppe habitat.

Comment 3: One peer reviewer commented that the 250-m (820-ft) area around EOs may not adequately protect adjacent suitable slick spots to allow slickspot peppergrass populations to shift or expand as conditions allow within current EOs and recommended increasing the buffer to 500 m (1,640 ft). In addition, this reviewer and several commenters recommended including unoccupied slick spots that border proposed critical habitat areas. Another peer reviewer proposed including more of the identified slickspot peppergrass habitat (slick spots present) in the Mountain Home Area in Idaho as critical habitat. This same reviewer also stated their opinion that more habitat needs to be designated to address fragmentation, ensure pollination, and maintain genetic diversity.

Our Response: Based on the best scientific information available, we are designating EOs that are currently occupied by slickspot peppergrass (*i.e.,* EOs B–D) as well as increasing the buffer around each occupied EO. The increased buffer will ensure habitat of sufficient quantity and quality is available to support the nesting, feeding, and reproduction for pollinators of slickspot peppergrass in occupied slick spots. We are not designating any areas outside the geographical area occupied by the species at the time of listing because we did not identify any

unoccupied areas that were essential for the conservation of the species.

Comment 4: One peer reviewer recommended we include two recently discovered EOs as critical habitat to allow for more connectivity. In addition, several commenters requested that new EOs found during surveys from 2017–2020 and reported by the Bureau of Land Management (BLM) be included in our critical habitat designation.

Our Response: After receiving several comments on newly identified EOs that were discovered during surveys by the BLM between 2016 and 2018, we identified nine EOs in IDFG's Idaho Fish and Wildlife Information System (IFWIS) database that were unranked. At our request, the IDFG reviewed all nine of the EOs. Six of the EOs (EOs 122 (Unit 3a), and 123, 124, 727, 728, 729 (Unit 4)) had enough associated information for the IDFG to conduct their ranking process. All six met our criteria for critical habitat as defined by the PBFs essential to the conservation of the species. EO 122 was occupied at the time of listing (2016). The other five EOs were found in 2017 and were likely occupied at the time of listing because these slick spots had not been surveyed prior to 2017, and slickspot peppergrass is not likely to colonize new areas to the extent to which these EOs were populated (number of plants ranged from 13 to 766 per EO) within a year. Therefore, all six EOs are included in our final critical habitat designation. We did not include the remaining three EOs (EOs 730, 731, and 732) in Unit 4 because they lacked enough information to be ranked according to IDFG's criteria, which we rely on to determine if an EO has one or more PBFs.

State Comments

Comment 5: The State of Idaho commented that in 2019 the IDFG relocated slickspot peppergrass at EO 114 and mapped additional plants about 3 kilometers (km) (1.9 miles (mi)) to the southeast based on a 1911 herbarium collection. Another commenter stated that the proposed critical habitat polygons imply that slickspot peppergrass populations do not exist in significant numbers outside the defined area. They went on to cite examples where additional occupied slick spots were found during IDFG surveys (Miller and Kinter 2018, pp. 5, 7; Miller and Kinter 2019, p. 5). The commenter further stated that unless we use supporting research to delineate critical habitat boundaries, any boundaries we designate would be arbitrary.

Our Response: For this final rule, we used the most current EO data from the IDFG (IFWIS July 2021). As discussed above in our response to *Comment 4* and in Criteria and Methodology Used To Identify Critical Habitat, we also added six new EOs to our critical habitat designation that were in the IDFG database but had not been ranked by IDFG biologists. And while some uncertainty will always exist, the information used in this final rule represents the best available scientific information upon which to make a critical habitat designation for slickspot peppergrass. Further, survey and monitoring work for this species and its habitat will continue into the future and is not limited to critical habitat boundaries. Additional occupied habitat identified during future surveys would be considered during section 7 consultations if there is a Federal nexus (*i.e.,* any action funded, authorized (permitted), or carried out by a Federal agency) and in our recovery efforts for the species. Please refer to the Background section, below, for further discussion.

Comment 6: The State and one other commenter remarked that the proposed rule (85 FR 44584, July 23, 2020) states that for an EO to fulfill the criteria described in PBF 1, both the slick spot geological feature needs to be present (PBF 1(a)), and the site needs to contain sparse vegetation with absent, or limited to low to moderate, invasive nonnative plant cover (PBF 1(b)). The commenters stated that based on the habitat description associated with EOs ranked C and below, we are proposing to include some EOs that do not meet PBF 1(b). Without both of these features, the EO does not meet PBF 1 in its entirety and, therefore, does not meet our definition of an ecologically functional slick spot. In addition, the commenters stated that providing ''one'' PBF is not sufficient and if, for example, the slick spot is ecologically functional (PBF 1a and 1b) but is not surrounded by relatively intact sagebrush (PBF 2), then the interdependent habitat requirements are also not met.

Our Response: The IDFG EO rankings do not necessarily correlate directly to the PBFs. For example, as described in the *Summary of Essential Physical or Biological Features,* below, PBF 1(b) states that ecologically functional microsites or ''slick spots'' are characterized by sparse vegetation, with introduced, invasive, nonnative plant species cover absent or limited to low to moderate levels. However, the IDFG EO rankings do not directly measure invasive, nonnative plant cover within the actual slick spot. The assessments of condition were based mostly on the EO habitat surrounding the slick spots, which tended to be more invaded than the slick spots. So, even if a habitat ranking was characterized as being moderately to highly invaded, the slick spots themselves often had very low amounts of invasive species (Kinter 2020, pers. comm.). Therefore, we used the IDFG EO rankings, which constitute the best available information that we have, as surrogates to help us determine which EOs provide the PBFs essential to the conservation of the species that may require special management considerations or protections. In addition, although some of the EOs with lower ranks (CD- and D-ranked EOs) often have PBFs with degraded conditions and may require special management considerations or protection, we determined that including these lower ranked EOs is essential to the conservation of the species. The Criteria and Methodology Used To Identify Critical Habitat section, below, of this final rule has been revised to reflect these clarifications.

As stated in the proposed rule (85 FR 44584, July 23, 2020), and in this final rule, areas are included in critical habitat if they contain one or more of the PBFs; PBFs do not have to occur simultaneously to constitute critical habitat for slickspot peppergrass.

Comment 7: The State and two commenters (Owyhee County Commissioners and a private landowner) stated that all EOs and sub-EOs that were assigned a condition or landscape factor rank of C, CD, or D based on either Miller and Kinter's Snake River Plain and Adjacent Foothills 2018 report or Miller and Kinter's Jarbidge Geographic Area 2019 report should not be designated as critical habitat. They added that the EO assessments in the 2018 and 2019 reports provide context to the 2016 rankings in many EOs and that these assessments should be used to determine whether an EO meets the PBF criteria. They further state that the 2018 and 2019 documents support the need to eliminate more areas of proposed critical habitat as not meeting PBFs. They also state that population size is not described as a PBF but is still one of three factors determining an EO rank in the IDFG assessment with some EOs most likely having a higher rating due to the population size, and not because of the quality of the habitat itself. The State of Idaho questioned if these habitats are essential for the conservation of the species, noting that the occupied status of these EOs is not in question, but whether the habitat truly meets the PBF criteria based on site conditions detailed in the 2018 and

2019 reports (Miller and Kinter 2018 and 2019, entire).

Our Response: For our July 23, 2020, revised proposed rule (85 FR 44584) for slickspot peppergrass, we relied on information provided by the IDFG that provided their most up-to-date assessments for slickspot EOs, including updated EO ranks (Kinter and Miller 2016, entire). Information contained in the 2016 report was from field surveys conducted from 2012 through 2016. Miller and Kinter's 2018 report includes the details of their field surveys from 2012 through 2016 for the Foothills and Snake River Plain Geographic Areas. Miller and Kinter's 2019 report also includes the details of their field surveys during the period 2014–2015 for the Jarbidge Geographic Area. The 2016 report was a summary of all field surveys and contained the updated EO ranks that were derived from data collected during the above-mentioned survey periods. While supplemental information was considered, the EO ranks reported in the 2016 report represent the best available scientific data from which we made our final critical habitat determination.

As the commenters noted, a portion of the EO ranking score was based on the EO/sub-EO size. While EO size is not identified as a specific PBF, population size does contribute to the resiliency of a species; therefore, we clarified in the Criteria and Methodology Used To Identify Critical Habitat section, below, that we used the IDFG rankings as surrogates to help us determine which EOs provide the PBFs essential to the conservation of the species that may need special management. Also, please see our response to *Comment 7.*

With respect to the State's comment regarding which EOs meet our definition of critical habitat, based on comments received during the public comment period on our revised proposed critical habitat rule (85 FR 44584, July 23, 2020), we reevaluated our criteria for determining which EOs contain PBFs and meet our definition of critical habitat. The proposed rule did not include EOs ranked D or lower; however, in this final rule we included all areas that were occupied at the time of listing that are ranked B–D (there are currently no EOs ranked A or AB). Our rationale for including D-ranked EOs is provided in the Criteria and Methodology Used To Identify Critical Habitat section, below.

Comment 8: The State of Idaho commented that, because private lands cannot be subject to management actions and conservation measures through the Endangered Species Act unless there is a Federal nexus resulting in section 7 consultation, the proposed critical habitat rule (85 FR 44584, July 23, 2020) provides no new conservation measures across any of the sites, whether Federal, State, or privately owned. They also stated that management actions through section 7 consultation will not effectively address the threats of wildfires and invasive species on private lands. Lastly, they commented that designation of critical habitat on private land can lead to decreased land values and possibly expose slickspot peppergrass to threats that cannot be addressed by a section 7 consultation. Given these reasons, the State believes that the benefits of exclusion (from critical habitat designation) outweigh the benefits of inclusion on private land.

Our Response: As detailed in the Considerations of Impacts Under Section 4(b)(2) of the Act section of this document, below, based on our evaluation of the available information, we determined that the benefits of excluding private lands outweighed the benefits of including them in our critical habitat designation; therefore, we excluded private land from the final designation. Activities with a Federal nexus that may affect slickspot peppergrass plants on private land will still require section 7 consultation under the Act. Actions that may affect slickspot peppergrass plants on private lands without a Federal nexus do not require section 7 consultation with the Service.

As a conservation tool, a critical habitat designation ensures that when actions with a Federal nexus are proposed within critical habitat, the Federal action agency reviews the proposed action and, if needed, consults with the Service to determine if the action will adversely modify critical habitat. Critical habitat does not require a Federal agency or a private landowner proposing an action with a Federal nexus to perform any conservation actions, although the Service and the Federal action agency may identify conservation recommendations that can be voluntarily implemented.

Comment 9: The State of Idaho and multiple commenters stated that there are additional administrative costs of section 7 consultation that are incurred under critical habitat designation, including land-value depreciation. In addition, the State commented that the economic analysis did not consider economic impacts to livestock permittees from delaying the spring grazing season, indirectly eliminating grazing by lowering turnout and, therefore, opportunity costs to private and State endowment lands. Several other commenters urged the Service to undertake an in-depth consideration of the potential impacts of the critical habitat designation on the economy of the affected areas. One commenter expressed concern that the economic analysis did not capture the potential significant impacts on affected livestock permittees of the implementation of existing livestock-grazing conservation measures.

Our Response: According to section 4(b)(1)(A) of the Act, the listing of a species as threatened or endangered is a decision made based ''solely on the basis of the best scientific and commercial data available.'' However, in the case of designating critical habitat, the Act requires additional considerations under section 4(b)(2) including the economic, national security, and other impacts of designating a particular area as critical habitat. Because of this distinction, we must analyze the effects of a critical habitat designation separate from any effects that may result from the listing of a species. To do so, our guidelines for economic analyses of proposed critical habitat designations, developed in accordance with the recommendations set forth in Executive Order 12866 (''Regulatory Planning and Review''), describe the need to measure the benefits and costs of a rule against a baseline.

The analysis of economic impacts of a critical habitat designation involves evaluating the baseline condition under two scenarios: one with critical habitat and one without critical habitat. The impacts of critical habitat equal the difference, or ''increment,'' between these two scenarios. This is known as an ''incremental analysis.'' Measured differences may include changes in land or resource use, environmental quality, or time and effort expended on administrative and other activities by Federal landowners, Federal action agencies, State and local governments, or private third parties. Any differences that are attributable solely to critical habitat are considered an incremental impact of the designation. Most of the examples of impacts offered by commenters were effects attributable to other conservation measures for slickspot peppergrass that are already in place because of the listing of the species (*e.g.,* delaying turnout of cattle when soils are saturated) and not due to critical habitat; such effects cannot be considered an impact of critical habitat.

Currently, and as described in our final economic analysis, we do not foresee a circumstance in which designation of critical habitat will change the outcome or alter the timing

of future Federal agency section 7 consultations. Any conservation measures implemented to minimize impacts to the species would likely be sufficient to also minimize impacts to critical habitat.

Comment 10: The State of Idaho commented that the Idaho Department of Lands (IDL) was part of the 2006 Candidate Conservation Agreement (CCA) for slickspot peppergrass ensuring habitat is protected on Idaho endowment lands, which negates the need for critical habitat designation. In addition, the State commented that even though the CCA has expired, the IDL continues to implement conservation measures outlined in the 2006 CCA.

Our Response: As described in our response to *Comment 9,* above, we have a statutory obligation to designate critical habitat for listed species, based on the identification of those areas occupied by the species at the time of listing, that provide the PBFs essential to the conservation of the species, and that may require special management considerations or protection. However, the Act additionally provides the Secretary discretion to exclude areas from the final designation if the benefits of excluding those areas outweigh those of including them (and if such exclusion will not result in the extinction of the species). As detailed in Considerations of Impacts Under Section 4(b)(2) of the Act below, following our review and evaluation of the best available information, including the new 2021 conservation agreement between the Service and the State of Idaho, we agree that the benefits of excluding areas on State of Idaho lands outweigh the benefits of including those areas in critical habitat, and we have excluded all State-owned lands from this final designation of critical habitat. This includes the State of Idaho endowment trust lands, management of which is entrusted to the State Board of Land Commissioners. The IDL is the administrative arm of the Board and carries out the executive directives of the Board to meet the constitutional trust mandate under article IX section 8 of the Idaho Constitution to use the trust lands for the support of State institutions.

Comment 11: The State of Idaho commented that several areas along Idaho Department of Transportation rights-of-way (ROWs) are critical to reduce the potential for fire starts from Interstate 84. They further stated that the proposed designated critical habitat within these ROWs puts large areas that have slickspot peppergrass outside of the ROW at risk by potentially affecting the ability to implement mowing and other preventative measures needed to halt fire starts from the Interstate.

Our Response: Rights-of-way (ROW) on Federal lands are not excluded from critical habitat designation if they contain one or more of the PBFs described within the final rule and are part of an EO ranked B, BC, C, CD, or D or are within 500 m (1,640 ft) of those EOs. If an area is designated as critical habitat, and there is a Federal nexus associated with an ROW project, a section 7 consultation in this area would evaluate the presence of any PBFs and note whether there are effects from the action that may affect critical habitat. During emergency events, the primary objective of the responding agency must be to protect human life and property, and this objective takes precedence over normal consultation requirements. In such events, agencies can engage in emergency section 7 consultation with the Service to expedite recommendations for minimizing adverse effects to listed species and designated critical habitat areas that may be adversely affected by emergency response activities.

Tribal Comments

Comment 12: The Shoshone-Bannock Tribes asked that the Service consider ecological range characteristics, rather than simply presence of slickspot peppergrass, when designating critical habitat and cited examples (*e.g.,* climate, elevation, soil characteristics, solar irradiance, and community species composition characteristics), as drivers for potential and occupied habitat. They indicated that this type of scientific analysis would not result in the small and highly fragmented critical habitat unit maps being proposed, and the analysis may help the Service identify new EOs. They added that slickspot peppergrass needs additional critical habitat outside the proposed critical habitat units to facilitate spread and colonization. Further, the Tribes and one additional commenter stated that surveys for additional habitat should continue, as well as high-quality and experimentally designed monitoring programs.

Our Response: Please see our responses to *Comments 1–3.* In response to the comment regarding more survey, monitoring, and analysis being needed, 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. We must make this designation on the basis of the information available at this time, and we may not delay our decision until more information about the species and its habitat is available. This final rule expands on the proposed critical habitat by including areas with D-ranked EOs, which represent the lowest ranked occupied EOs, and increasing the buffer around EOs from 250 meters (m) (820 feet (ft)) to 500 m (1,640 ft) in order to provide habitat for all of the important pollinators of slickspot peppergrass.

While some uncertainty will always exist, the information used in this final rule represents the best available information upon which to make a critical habitat designation for slickspot peppergrass. It also does not preclude future survey, monitoring, and analyses for this species and its habitat, and it is not limited to critical habitat boundaries. We will be developing a recovery plan with input from stakeholders and partners that will establish priorities and measures to recover the species, and which will consider ecological range characteristics and address habitat fragmentation. During the recovery planning process, a range of conservation tools, data, and analyses will be used to determine how best to recover the species.

Comment 13: The Shoshone-Bannock Tribes commented that grazing should not be allowed within occupied habitat if necessary to protect the species from extinction. They stated that the best way to manage grazing use on public lands is to implement strong management goals and objectives that maintain high-quality biological soil crust communities and enhance degraded biological soil crust communities where they have been impacted from grazing and surface disturbances.

Our Response: We will be developing a recovery plan with input from stakeholders and partners that will establish priorities and measures to recover the species. These priorities will include measures to prevent or reduce habitat degradation and will set goals to facilitate the recovery of the species. Furthermore, the BLM's conservation agreement (BLM 2014) outlines conservation measures for ongoing actions authorized by the BLM including livestock grazing, rights-of-way activities, and military training. These conservation measures currently apply to slickspot peppergrass EOs and the surrounding area out to 805 m (2,641 ft).

Public Comments

Comment 14: One commenter stated that the Service failed to describe how many plants are present in each EO.

Our Response: We did not include the number of plants in the proposed rule (85 FR 44584, July 23, 2020) because we

did not rely solely on the number of plants in an EO. Instead, we followed an EO ranking method developed by NatureServe (NatureServe 2020*b,* entire) and used by the IDFG to rank EOs that combined measures of population size and habitat quality; therefore, we did not provide the number of plants in the EO descriptions.

Comment 15: One commenter expressed concern that designating slickspot peppergrass critical habitat for those EOs with rankings of CD or better continues to set the stage for additional habitat loss in future assessments. They followed with this example, ''if an EO with a C ranking now is found to have a D rank in 3–5 years, it is not clear whether the USFWS would strip the critical habitat designation from the particular EO.''

Our Response: In this final rule, we are designating all occupied EOs ranked B–D as critical habitat. If, in subsequent years, an EO is no longer found to be occupied, and it no longer contains the essential PBFs, it would still be part of the critical habitat designation. A future section 7 consultation in this area would evaluate the presence of any PBFs and note whether or not there are effects from the action that may affect the critical habitat. If we revise the critical habitat designation in the future, we would take into consideration where the species is present (occupied habitat) and whether any PBFs are present in any area at the time of that revision.

Comment 16: One commenter stated that the 250-m (820-ft) area be a guideline rather than a fixed rule so that it could be reduced when it would include unsuitable habitat, such as roads, cropland, or ecological sites without slick spots. The commenter also remarked that crossing allotment boundaries when slick spots are not present in adjacent allotments needlessly complicates the management of the adjacent allotment.

Our Response: As described in this final rule, the designation of critical habitat does not include roads or other developed sites such as cropland, airports, and buildings. When determining critical habitat boundaries within this final rule, we made every effort to avoid including these types of developed areas because such lands lack the PBFs for slickspot peppergrass. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not perfectly reflect the exclusion of such developed lands. However, any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat.

In reference to grazing allotment management, areas are included in critical habitat if they are occupied by slickspot peppergrass (*i.e.,* EOs B–D) or are within the additional 500-m (1,640-ft) pollinator buffer area of those EOs. Furthermore, we do not anticipate or foresee any changes to conservation measures currently in place for livestock use. When projects proposed on BLM lands may affect listed species or critical habitat, consultation with us is required under section 7(a)(2) of the Act. Currently, we do not foresee a circumstance in which critical habitat will change the outcome of future section 7 consultations as all areas designated as critical habitat are also included in BLM section 7 consultations addressing the effects of actions on the species.

Comment 17: One commenter stated that the polygons associated with Unit 2, Subunit 2a in Ada County are widely dispersed, covering multiple Sections, Townships, and Ranges and that designating the entire subunit as critical habitat made little sense considering the wide distribution of plant EOs and the significant amount of residential and commercial development that occupied the spaces between populations.

Our Response: The critical habitat units are based on geographically clustered EOs that meet our definition of critical habitat. Only occupied EOs and their associated buffers are being designated as critical habitat. In our proposed rules, we displayed critical habitat surrounded by rectangular polygons on our unit and subunit maps, which led to confusion about what was actually the designated critical habitat. In our final rule, we updated our maps by eliminating the rectangular polygons so that only critical habitat is displayed.

Comment 18: One commenter responded that the Service recently issued a proposed rule on defining habitat due, in part, to a decision by the U.S. Supreme Court in *Weyerhaeuser Co.* v. *U.S. FWS,* 139 S. Ct. 361 (2018) and was concerned that this proposed definition of habitat was not included in our July 23, 2020, revised proposed rule (85 FR 44584) for slickspot peppergrass.

Our Response: As stated in the revised regulations regarding the definition of habitat (85 FR 81411, December 16, 2020), these regulations apply only to critical habitat rulemakings for which a proposed rule is published after January 15, 2021. We published our revised proposed critical habitat rule for slickspot peppergrass on July 23, 2020 (85 FR 44584). Therefore, the revised regulations regarding the definition of habitat do not apply to this final critical habitat rule for slickspot peppergrass. Furthermore, we rescinded the habitat definition on June 24, 2022 (87 FR 37757) with an effective date of July 25, 2022.

Comment 19: One commenter stated that critical habitat should not be designated for slickspot peppergrass because any ''official designation'' is meaningless for the preservation of the species in the face of its primary threats: fire and invasive species. The commenter added that slickspot peppergrass is a BLM- and State of Idaho-sensitive species and that areas containing slickspot peppergrass already receive priority status for fire-fighting activities; therefore, the designation of critical habitat will not increase BLM's (and others') ability or willingness to extinguish fires. The commenter concluded that because there would be no change in how the primary threats are managed, section 7 consultation is meaningless.

Our Response: We designate critical habitat by identifying the areas that are essential to the conservation of the species based on our understanding of the range of the species and the species' essential PBFs. If an area meets those criteria for designating critical habitat, we develop proposed critical habitat unit designations. In addition, even if the designation of critical habitat will not increase an action agency's ability to conserve the species, the designation itself is still prudent because the areas meet the definition of critical habitat and there are habitat-based threats within the critical habitat boundaries.

Comment 20: One commenter stated that the rulemaking should include a provision, to the extent permitted by the Act, that any EOs that are burned by wildfire, so that they no longer contain the necessary combinations of habitat PBFs, are automatically not considered to be critical habitat from the date of the fire and continuing until further rulemaking on the subject.

Our Response: Section 3 of the Act defines critical habitat, in part, as having PBFs that are essential to the conservation of the species, which may require special management considerations or protection. If an area is designated as critical habitat and is subsequently burned by wildfire such that it no longer contains the essential PBFs, it would still be part of the critical habitat designation but may need special management to restore some of the PBFs.

Comment 21: One commenter stated that there is no science demonstrating that any management considerations or methods of protections will significantly

affect the survivability of slickspot peppergrass populations. They stated that we lack information on the essential features to support slickspot peppergrass, and, without knowledge of the soil chemistry at a specific location, designation of critical habitat will be arbitrary since that area (*i.e.,* slick spot) may or may not contain the essential features.

The commenter also questioned what science there is to demonstrate that slickspot peppergrass pollination and seed production is different between adjacent sagebrush habitat and non-sagebrush habitat and requested information that substantiates the necessity to include adjacent sagebrush habitat in the critical habitat designation.

Our Response: As required by section 4(b)(2) of the Act, we used the best scientific data available in determining those specific areas within the geographic area occupied at the time of listing that contain the features essential to the conservation of slickspot peppergrass and that may require special management considerations or protection. We have reviewed and considered scientific and commercial data contained in numerous technical reports, peer-reviewed published journal articles, and other documents and based our determination of slickspot peppergrass PBFs (including ecologically functioning microsites) on the best available data regarding the plant's currently known habitat requirements (See Physical or Biological Features Essential to the Conservation of the Species, below, for more information). We acknowledge that not all slick spots contain slickspot peppergrass. Therefore, based on the best scientific information available to us at this time, we limited the critical habitat designation to areas known to be occupied by the species (including some adjacent sagebrush-steppe habitat to provide for ecosystem function). While we also acknowledge that slickspot peppergrass has been infrequently documented outside of slick spots, the vast majority of plants documented over the past 25 years of surveys and monitoring for the species are documented within slick spot microsite habitats. For more information on slick spot microsites, please see the 2009 listing rule (74 FR 52014, October 8, 2009) and the slickspot peppergrass SSA report (USFWS 2020, pp. 4, 6).

Comment 22: One commenter stated that the Service has not adequately considered a broad body of current data (including GIS data for native and nonnative vegetation, soils, development, etc.) available on the degree and severity of habitat degradation that currently exists (citing information used by the BLM in their Land Use Plans), or used site-specific information on the current road, livestock, energy, or other infrastructure and management schemes that are being applied within the critical habitat designation. The commenter stated that the proposed rule designates ''bits and pieces'' of critical habitat, which the commenter states will promote additional fragmentation, make management of critical habitat difficult and less economically feasible, and encourage more harmful fences and other developments.

Our Response: Regarding the ecological setting of slickspot peppergrass, the species' habitat is inherently fragmented because it relies on isolated and non-contiguous slick spot habitats. We identified areas within the geographic range of slickspot peppergrass that were occupied at the time of listing and contain the PBFs essential to the conservation of the species that may require special management considerations or protection. Please see Criteria and Methodology Used to Identify Critical Habitat, below, for more details on how critical habitat was determined. Regarding the comment that we did not use site-specific information on the current road, livestock, energy, or other infrastructure and management schemes that are being applied within the critical habitat designation, and the commenter's statements regarding the BLM Land Use Plans, we will work with the BLM to avoid or minimize these potential impacts during future section 7 consultations, as appropriate, and recommend the BLM take these potential impacts into consideration when developing their management plans.

On Federal land, it is the responsibility of the appropriate land management agency to develop and implement resource management plans. Projects with a Federal nexus would require section 7 consultation under the adverse modification standard if they affected designated critical habitat (see the *Section 7 Consultation* section, below, for more discussion of this process). However, if project-related effects may occur, areas occupied by slickspot peppergrass would require section 7 consultation whether the area is designated as critical habitat or not. In addition, as part of developing and implementing a recovery strategy for a listed species, we consider site-specific management strategies important to the conservation of the species, and we also work with landowners, managers, researchers, and others to develop and implement them, as appropriate, as part of the recovery process.

Comment 23: One commenter stated that projected and reasonably likely impacts of climate change on slickspot peppergrass are unknown, as is the response to climate change by slickspot peppergrass. The commenter added that future climate change is only a hypothesis based on non-validated models, which cannot be proven. Conversely, two other commenters stated that climate change is expected to exacerbate several of the primary threats to slickspot peppergrass, and it is essential that a much greater area (including occupied and unoccupied habitat and areas located at the highest elevations available) be protected to ensure the species' viability and aid efforts to buffer the species from adverse climate change impacts. They also stated that it is hypothesized that slick spots were created during the Pleistocene and are no longer being formed and, therefore, all remaining slick spots should be protected. The commenter also noted that climate change is not mentioned in the body of the July 23, 2020, revised proposed critical habitat rule (85 FR 44584).

Our Response: As described in our February 2020 slickspot peppergrass SSA report (USFWS 2020, pp. 79–83), it is possible that climate change has contributed to the downward trend in slickspot peppergrass population numbers observed over the past decade and the projected consequences of climate change could act to further exacerbate the primary threats of frequent wildfire and invasive, nonnative annual grasses on slickspot peppergrass throughout its range. After considering the best available information as well as the comments received, we are now including all occupied EOs ranked B–D and extending the buffer around EOs from 250 m (820 ft) to 500 m (1,640 ft)). In addition, we are including six newly ranked EOs; five are located in the Jarbidge geographic area, which contains the highest elevation habitat. In Criteria and Methodology Used to Identify Critical Habitat, below, we provide our rationale for making these changes.

Regarding the comment about climate change not being addressed in our July 23, 2020, revised proposed rule (85 FR 44584), we have included a brief discussion in our Criteria and Methodology Used to Identify Critical Habitat section, below. Information identified in the SSA indicates that climate change has already amplified the effects of wildfire and invasive,

nonnative plants on slickspot peppergrass and may have been a factor in the continuing downward trend in slickspot peppergrass population numbers observed over the past decade. Habitat is often dynamic and species may move from one area to another over time, but most plant species cannot naturally shift their geographic ranges fast enough to keep up with predicted high projected rates of climate change. The Intergovernmental Panel on Climate Change (IPCC) projects changes to the global climate system in the 21st century will likely be greater than those observed in the 20th century (IPCC 2007, p. 45; IPCC 2014, pp. 10, 60). However, by designating critical habitat in all three geographic areas (Foothills, Snake River Plain, and Jarbidge) where the species occurs, including all B–D ranked EOs as well as the 500-m (1,640-ft) pollinator buffer around designated EOs, we determined that these areas will help support slickspot peppergrass under potential climate change scenarios in the future. A complete description of the potential effects from climate change and our evaluation of this threat is found in the October 8, 2009, final listing rule (74 FR 52014), the August 17, 2016, listing reinstatement rule (81 FR 55058), and our February 2020 slickspot peppergrass SSA report (USFWS 2020, pp. 79–83).

In addition, 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 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 required for recovery of the species. Areas that are important to the conservation of slickspot peppergrass, both inside and outside a critical habitat designation, would 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 of section 9 of the Act if actions occurring in these areas may affect the species.

Comment 24: Two commenters did not support the section 4(a)(3)(B)(i) exemptions for the Mountain Home Air Force Base Juniper Butte Range and the Idaho National Guard Army OCTC due to the growing presence of military activity in southern Idaho, increasing threats from military uses, and potential spread of weeds from personnel accessing sites. One of the commenters stated that the OCTC and the Juniper Butte Range should be included in the critical habitat designation.

Our Response: The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136, 117 Stat. 1392) amended the Act, specifically, section 4(a)(3)(B)(i) (16 U.S.C. 1533(a)(3)(B)(i)) to provide that: ''The Secretary shall not designate as critical habitat any lands or other geographic 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 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 proposed for designation.'' Both the Mountain Home Air Force Base Juniper Butte Range (and associated emitter sites and rights-of-way) and the Idaho Army National Guard OCTC facilities have INRMPs prepared under section 101 of the Sikes Act. We determined that conservation efforts identified in these INRMPs are being implemented, are effective, and will provide a conservation benefit to slickspot peppergrass occurring in habitats within or adjacent to the identified lands. Examples of slickspot peppergrass conservation benefit within these INRMPs can be found in the Exemptions, *Application of Section 4(a)(3) of the Act* section below. Therefore, lands within these two installations are exempt from critical habitat designation under section 4(a)(3)(B)(i) of the Act, and we do not have the discretion to include them as the commenter recommends.

Comment 25: One commenter stated that the monetary and security costs to the Idaho Army National Guard and U.S. Air Force from designating slickspot peppergrass critical habitat in their training ranges is not captured in the 2012 final economic analysis.

Our Response: We exempted, under section 4(a)(3)(B)(i) of the Act, the Idaho Army National Guard's Orchard Combat Training Center (OCTC) and U.S. Air Force's Juniper Butte Range from the critical habitat designation based on development and implementation of approved INRMPs. Given these areas are exempt from critical habitat designation, there are no associated incremental costs of critical habitat designation to consider in the economic analysis. Therefore, any costs to the Idaho Army National Guard and U.S. Air Force are due to the listing of slickspot peppergrass, not designation of critical habitat, and thus will not be discussed in this final rule. Please see the Exemptions, *Application of Section 4(a)(3) of the Act,* section of this final rule for further information.

Comment 26: One commenter stated that the economic analysis completed in March 2012 does not reflect accurate, timely, or most recently available data. The commenter recommended that we conduct a current economic analysis that takes a growing population, increased development, climate change, and the economics of restricting livestock grazing in and around critical habitat EOs into consideration. *Our Response:* In the 2020 revised proposed critical habitat rule and in the *Exclusions Based on Economic Impacts* section of this rule, we articulate the reason why the incremental economic impacts of our current revised proposed designation of critical habitat for slickspot peppergrass will be similar to levels described in the 2012 final economic analysis. The BLM indicated that any increase in cost associated with critical habitat section 7 compliance would be limited to increases in BLM staff costs, which have been minimal since 2012 when the economic analysis was completed, but not an increase in time needed to conduct section 7 compliance (Kershaw 2020, pers. comm.). Unless unforeseen changes occur to existing conservation measures or the management of land-use activities, the incremental impacts of critical habitat designation described in the 2012 final economic analysis would continue to be limited to additional administrative costs of section 7 consultations for Federal agencies, primarily BLM, associated with considering the potential for adverse modification of critical habitat.

In this final rule, we are also excluding State and private lands from designation of critical habitat. Therefore, there are no section 7 critical habitat consultation requirements on those lands, although they will still be subject to section 7 consultation on the species if there is a Federal nexus. Therefore, we still find that the conclusion of the 2012 final economic analysis applies to this final rule.

Comment 27: One commenter stated that Federal oversight is required to conserve slickspot peppergrass, and that State of Idaho or private lands should not be excluded given that the agreements typically relied upon are voluntary and unenforceable. This commenter also said that reluctance by private landowners to allow access to slickspot peppergrass habitat will only further ensure that no oversight is possible.

Our Response: The Act provides the Secretary with discretion to exclude

areas from the final designation if the benefits of excluding those areas outweigh those of including them (and if such exclusion will not result in the extinction of the species). As detailed in the Considerations of Impacts Under Section 4(b)(2) of the Act section, below, based on our review and evaluation of the best available information, we conclude that the benefits of excluding areas on State of Idaho and private lands outweigh the benefits of including those areas in critical habitat. We therefore excluded all State and private lands from the final critical habitat designation.

Comment 28: Two commenters stated that our revised proposed rule cited several documents (*e.g.,* Gathmann and Tscharntke 2002; Steffan-Dewenter et al. 2002; Kinter and Miller 2016) to support our findings, but our document did not provide a list of references. They recommended that these references be added when the revised proposed rule is finalized.

Our Response: All references cited in our revised proposed rules and our final rule are available on the internet at *https://www.regulations.gov* in Docket No. FWS–R1–ES–2010–0071 and upon request from the Idaho Fish and Wildlife Office. All references for our July 23, 2020, revised proposed rule (85 FR 44584), including the three references cited as examples in the comment above, can be found by going to *https://www.regulations.gov/document/FWS-R1-ES-2010-0071-0065* and downloading the ''Download File''. However, Gathmann and Tscharntke (2002) was incorrectly cited as ''Achim Gathmann, A. and T. Tscharntke'' and, therefore, was out of alphabetical order in our list of references. We corrected this mistake in our final rule references list.

Comment 29: Several commenters questioned whether the Service was following its own Information Quality Act procedures.

Our Response: We have reviewed and considered scientific and commercial data contained in numerous technical reports, published journal articles, and other documents. We must base our critical habitat designation for slickspot peppergrass on the best available scientific data. We acknowledge that uncertainties exist; however, section 4 of the Act mandates that we make our designation based on the best scientific information available at the time of our determination. We have designated critical habitat for slickspot peppergrass consistent with 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, to ensure that our decision is based on the best scientific data available.

Critical Habitat

Background

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).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures which are necessary to bring any endangered species 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 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 PBFs 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 from the SSA report and 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, 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 PBFs that are essential to the conservation of the species and that 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 a 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.

With rare exception, slickspot peppergrass occurs only in slick spot microsites scattered within the greater, semiarid, sagebrush-steppe ecosystem of southwestern Idaho. Slick spots provide habitats that are representative of the historical, geographical, and ecological distribution of slickspot peppergrass, and provide nutrients and water for reproduction, germination, and seed dispersal. The restricted distribution of slickspot peppergrass is likely due to its adaptation to the specific conditions within these slick spot habitats. Slick spots are distinguished from the surrounding sagebrush habitat as having the following characteristics: microsites where water pools when rain falls (Fisher et al. 1996, pp. 2, 4); sparse native vegetation; distinct soil layers with a columnar or prismatic structure, higher alkalinity and clay content, and natric (sodic, high sodium) properties (Fisher et al. 1996, pp. 15–16; Meyer and Allen 2005, pp. 3–5, 8; Palazzo et al. 2008, p. 378); and reduced levels of organic matter and nutrients due to lower biomass production (Meyer and Quinney 1993, pp. 3, 6; Fisher et al. 1996, p. 4). Although the low permeability of slick spots appears to help hold moisture (Moseley 1994, p. 8), once the thin crust dries out, the survival of slickspot peppergrass seedlings depends on the ability of the plant to extend the taproot into the argillic horizon (soil layer with high clay content) to extract moisture from the deeper natric zone (Fisher et al. 1996, p. 13).

Ecologically functional slick spots have the following three primary layers: the surface silt layer, the middle restrictive layer, and an underlying moist clay layer. Although slick spots can appear homogeneous on the surface, the actual depth of the silt and restrictive layer can vary throughout the slick spot (Meyer and Allen 2005, Tables 9, 10, and 11). The top two layers (surface silt and restrictive) of slick spots are normally very thin; the surface silt layer varies in thickness from a 0.25 to 3 centimeters (cm) (0.1 to 1.2 inches (in)) in slick spots known to support slickspot peppergrass, and the restrictive layer varies in thickness from 1 to 3 cm (0.4 to 1.2 in) (Meyer and Allen 2005, p. 3). Fisher et al. (1996, p. 4) describe the smooth surface layer of slick spots as crustlike, with prominent vesicular pores. Below the surface layer, the soil clay content increases abruptly and creates a strongly structured, finely textured boundary (horizon) formed by the concentration of silicate clay materials, known as an argillic horizon.

Slick spot soil profiles are distinctive and distinguished from the surrounding

soil matrix by very thin surface layers that form prominently vesicular crusts, natric-like argillic horizons that occur just below the soil surface, and by increasingly saline and sodic conditions with depth (Fisher et al. 1996, pp. 11, 16). Disturbances that alter the physical properties of slick spot soil layers, such as deep disturbance and the addition of organic matter, may lead to destruction and permanent loss of slick spots. Slick spot soils are especially susceptible to mechanical disturbances when wet (Rengasamy et al. 1984, p. 63; Seronko 2004, in litt., entire). Such disturbances disrupt the soil layers important to slickspot peppergrass seed germination and seedling growth and alter hydrological function.

The biological soil crust, also known as a microbiotic crust or cryptogamic crust, is another component of quality habitat for slickspot peppergrass. Such crusts are commonly found in semiarid and arid ecosystems, and are formed by living organisms, primarily bryophytes (mosses), lichens, algae, and cyanobacteria (blue-green algae), that bind together surface soil particles (Moseley 1994, p. 9; Johnston 1997, p. 4). Microbiotic crusts play an important role in stabilizing the soil and preventing erosion, increasing the availability of nitrogen and other nutrients in the soil, and regulating water infiltration and evaporation levels (Johnston 1997, pp. 8–10). In addition, an intact crust appears to aid in preventing the establishment of invasive plants (Brooks and Pyke 2001, p. 4; Serpe et al. 2006, pp. 174, 176). These crusts are sensitive to disturbances that disrupt crust integrity, such as compression due to livestock trampling or off-road vehicle use and are also vulnerable to damage by fire. Recovery from disturbance is possible but occurs very slowly (Johnston 1997, pp. 10–11).

The native, semiarid sagebrush-steppe habitat of southwestern Idaho where slickspot peppergrass is found can be divided into two plant associations, each dominated by the shrub Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*): (1) Wyoming big sagebrush—Thurber's needlegrass (*Achnatherum thurberianum*); and (2) Wyoming big sagebrush—bluebunch wheatgrass (*Pseudoroegneria spicatum*) habitat types. The perennial bunchgrasses Sandberg's bluegrass (*Poa secunda*) and bottlebrush squirreltail (*Elymus elymoides*) are commonly found in the understory of these habitats, and basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*), gray or rubber rabbitbrush (*Ericameria nauseosus*), yellow rabbitbrush (*Chrysothamnus viscidiflorus*), strict buckwheat (*Eriogonum strictum*), bitterbrush (*Purshia tridentata*), and little-leafed horsebrush (*Tetradymia glabrata*) form a lesser component of the shrub community. Under relatively undisturbed conditions, the understory is populated by a diversity of perennial bunchgrasses and forbs, including species such as Indian ricegrass (*Achnatherum hymenoides*), common yarrow (*Achillea millefolium*), varileaf phacelia (*Phacelia heterophylla*), Pursh's milkvetch (*Astragalus purshii*), longleaf phlox (*Phlox longifolia*), and purple threeawn (*Aristida purpurea* var. *longiseta*).

Slickspot peppergrass is primarily an outcrossing species requiring pollen from separate plants for more successful fruit production; it exhibits low seed set in the absence of insect pollinators (Robertson 2003, p. 9; Robertson and Klemash 2003, p. 338; Robertson and Ulappa 2004, p. 1707; Billinge 2006, p. 40; Robertson et al. 2006, p. 40; Billinge and Robertson 2008, pp. 1005–1006). Insects from 25 families have been observed on slickspot peppergrass flowers (Robertson and Klemash, 2003, pp. 335–336). Of those 25 insect families, the primary slickspot peppergrass pollinators include several families of bees (Anthophoridae, Apidae, Colletidae, Halictidae, Sphecidae, and Vespidae), flies (Bombyliidae, Syrphidae, Calliphoridae, and Tachinidae), beetles (Cerambycidae, Dermestidae, Melyridae), and moths (Gelechiidae) (Robertson and Hannon 2003, p. 6; Robertson and Klemash 2003, p. 336; Robertson and Leavitt 2011, p. 384).

Pollinators need a diversity of native plants with overlapping bloom times to provide flowers for foraging throughout their active season; nesting and egg-laying sites (*e.g.,* bare ground, hollow stems, bunchgrasses); sheltered, undisturbed places for overwintering; and connected habitat patches (The Xerces Society 2018, pp. 15–17). In our proposed rule, we used a 250-meter (m) (820-foot (ft)) pollinator use area around each E.O. based on a foraging range of the solitary bee. However, we received several comments supporting an expansion of the pollinator-use buffer area to 500-m (1,640 ft) to account for the foraging range of all the associated pollinators noted in the above paragraph. After a thorough review of all the pollinator species for slickspot peppergrass, we agreed that each E.O. should be surrounded by a 500-m (1,640-ft) pollinator-use area to ensure that sufficient habitat and a diversity of native flowering plants are available to support the pollinator community required for the viability of slickspot peppergrass populations.

To determine the size of the pollinator-use area or buffer, we evaluated the pollinators of slickspot peppergrass and the distance that those pollinators were likely to fly in search of food. Although slickspot peppergrass is pollinated by a variety of insects, its primary pollinators are composed of families of small- to medium-sized solitary bees and flies, and larger, thread-waisted sphecid wasps (Sphecidae), meloid beetles, moths, and butterflies (Robertson and Leavitt 2011, pp. 384–385; Robertson 2020, pers. comm.). Flight distances are generally correlated with body size in bees; larger bees can fly farther than smaller bees (Gathmann and Tscharntke 2002, entire; Greenleaf et al. 2007, pp. 592–594; Kendall et al. 2022, p. 4). While researchers have reported that some solitary bee species, particularly larger bodied ones, are capable of foraging greater than 1 kilometer (km) (0.6 mile (mi)) (Zurbuchen et al. 2010, pp. 671–672), the majority of these species are central-place foragers (*i.e.,* remain close to their nest), thus foraging distances tend to be 500 m (1,640 ft) or less (Steffan-Dewenter 2003, p. 1041; BLM 2012, p. 19; Danforth et al. 2019, p. 207; O'Neill 2019, pp. 108–109; Antoine and Forrest 2021, p. 152). Syrphid flies, which are not central-place foragers, have been documented carrying pollen up to 400 m (1,312 ft) (Rader et al. 2011, pp. 522–525). Other noncentral-place foragers like moths and butterflies are capable of foraging over larger areas and could use areas within EOs and their associated buffers and beyond. Therefore, we find that a 500-m (1,640-ft) buffer is adequate for flies, moths, and butterflies, as well as the solitary bee pollinators of slickspot peppergrass.

In addition, honeybees were identified as a pollinator of slickspot peppergrass in our 2020 proposed rule (85 FR 44584). However, they are a nonnative species and compete for floral resources with native insect pollinators and spread diseases to native bees (Cane and Tepedino 2017, entire; Wojcik et al. 2018, pp. 827–829; Alger et al. 2019, pp. 5–7; Iwasaki and Hogendoorn 2022, pp. 7–8). Because of the potential negative impact they may have on the diverse native pollinator community associated with slickspot peppergrass, we do not consider them essential to the conservation of the species in this final rule.

The areas designated as critical habitat will ensure maintenance and continuity of foraging and nesting habitats for insect pollinators adjacent to occupied slick spots, thus promoting

a healthy pollinator community. This healthy pollinator community, in turn, helps to increase seed viability and production of slickspot peppergrass and is essential for maintaining genetic diversity in the species over the long term. In addition, the provision of sufficient native sagebrush-steppe habitat protects slickspot peppergrass from wildfire, nonnative plant invasions, and colonization by Owyhee harvester ants (see our final listing rule (74 FR 52014, October 8, 2009), the reinstatement of the listing rule (81 FR 55058, August 17, 2016), and the SSA (USFWS 2020) for a description of these threats), and it helps to maintain local ecosystem characteristics within the larger landscape, which are crucial for protecting the species and its persistent seed bank. The seed bank is an essential feature of slickspot peppergrass's biology because it provides the species with resilience in the face of stochastic impacts and variation in environmental conditions.

Summary of Essential Physical or Biological Features

Based on our current knowledge of habitat characteristics required to sustain the species' life-history processes, we determine that the PBFs essential to the conservation of slickspot peppergrass are:

(1) Ecologically functional microsites or ''slick spots'' that are characterized by:

(a) A high sodium and clay content, and a three-layer soil profile, which allows for successful seed germination, seedling growth, and maintenance of the seed bank. The surface horizon consists of a thin, silty, vesicular, pored (small cavity) layer that forms a physical crust (the silt layer). The subsoil horizon is a restrictive clay layer with an abruptic (referring to an abrupt change in texture) boundary with the surface layer, that is natric or natric-like in properties (a type of argillic (clay-based) horizon with distinct structural and chemical features) (the restrictive layer). The second argillic subsoil layer (that is less distinct than the upper argillic horizon) retains moisture through part of the year (the moist clay layer); and

(b) Sparse vegetation with invasive, nonnative plant species cover absent or limited to low to moderate levels.

(2) Relatively intact, native Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) vegetation assemblages, represented by native bunchgrasses, shrubs, and forbs, within 500 m (1,640 ft) of slickspot peppergrass element occurrences to protect slick spots and slickspot peppergrass from disturbance from wildfire, slow the invasion of slick spots by nonnative plant species and native harvester ants, and provide the habitats needed by slickspot peppergrass' pollinators.

(3) A diversity of native plants whose blooming times overlap to provide pollinator species with flowers for foraging throughout the seasons and to provide nesting and egg-laying sites; appropriate nesting materials; and sheltered, undisturbed places for hibernation and overwintering of pollinator species. In order for genetic exchange of slickspot peppergrass to occur, pollinators must be able to move freely between slick spots. Alternative pollen and nectar sources (other plant species within the surrounding sagebrush vegetation) are needed to support pollinators during times when slickspot peppergrass is not flowering, when distances between slick spots are long, and in years when slickspot peppergrass is not a prolific flowerer.

(4) Sufficient pollinators for successful fruit and seed production, particularly pollinator species of the sphecid and vespid wasp families, species of the bombyliid and tachnid fly families, and halictid bee species, most of which are solitary insects that nest outside of slick spots in the surrounding sagebrush-steppe vegetation, both in the ground and within the vegetation.

Special Management Considerations or Protections

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. A detailed discussion of the threats affecting the PBFs essential to the conservation of slickspot peppergrass, and that may require special management consideration or protection, can be found in the final listing rule published in the **Federal Register** on October 8, 2009 (74 FR 52014), the 2016 final rule reinstating threatened status for the species under the Act (81 FR 55058, August 17, 2016), in the recently completed SSA report (USFWS 2020, pp. 59–83, 85–103), and in the latest 5-year review (USFWS 2021).

The primary threats to the PBFs for slickspot peppergrass include the following direct and indirect effects: the current wildfire regime (*i.e.,* increasing frequency, size, and duration), invasive, nonnative plant species (*e.g.,* cheatgrass), and habitat loss and fragmentation due to agricultural and urban development. One of the indirect threats experienced by slickspot peppergrass is the negative impact on insect pollinators caused by conversion and fragmentation of native habitats due to invasive, nonnative plant species and various forms of development. Another indirect threat is the potential increase in seed predation by Owyhee harvester ants resulting from the conversion of sagebrush-steppe to grasslands. Livestock pose a threat to slickspot peppergrass, primarily through mechanical damage to individual plants and slick spot habitats; however, current livestock management conditions and associated conservation measures address this potential threat such that it does not pose a significant risk to the viability of the species as a whole.

In the 2009 listing rule (74 FR 52014, October 8, 2009), climate change in and of itself was not considered to represent a significant range-wide threat to slickspot peppergrass; however, it was acknowledged that climate change potentially plays an important supporting role in intensifying the primary threats to the species. Information identified in the SSA (USFWS 2020, pp. 79–82) indicated that climate change has already amplified the effects of wildfire and invasive, nonnative plants on slickspot peppergrass, and through its influence on invasive, nonnative annual grass spread, climate change may have been a factor in the continuing downward trend in slickspot peppergrass population numbers observed over the past decade. Other, less significant factors that have the potential to impact the species include the effects from rangeland revegetation projects, wildfire management practices, recreation, and military use.

All areas of critical habitat may require some level of management to address current and future threats to slickspot peppergrass and to maintain or restore the PBFs. Special management to protect the features essential to the conservation of slickspot peppergrass from the effects of the current wildfire regime may include preventing or restricting the establishment of invasive, nonnative plant species, post-wildfire restoration with native plant species, and reducing the likelihood of wildfires affecting the nearby plant community components. Rapid response to wildfires from local and government fire agencies can potentially limit the size of wildfires and the spread of wildfire into slickspot peppergrass habitat. For fires that do occur in critical habitat, post-fire restoration plans can identify ways to limit invasive, nonnative vegetation and restore habitat using native plants.

Special management to protect the features essential to the conservation of

slickspot peppergrass from the effects of invasive, nonnative unseeded plant species and seeded nonnative plants (also referred to as ''highly competitive nonnative seeded plants'' (USFWS 2020, p. 68)) may include the following: (1) protecting remnant blocks of native vegetation, (2) educating the public about invasive, nonnative species, (3) supporting research and funding for nonnative plant species control and native species restoration, (4) preventing or restricting the establishment of nonnative plant species, (5) washing vehicles prior to travel into areas containing slickspot peppergrass, and (6) reducing the likelihood of wildfires.

Special management to protect the features essential to the conservation of slickspot peppergrass from the effects of livestock use may include conservation measures and actions to minimize the effects of livestock use on these lands. Existing conservation plans and land use plans contain numerous measures to avoid, mitigate, and monitor the effects of livestock use on slickspot peppergrass. For example, livestock-grazing conservation measures are implemented through the conservation agreement between the Bureau of Land Management (BLM) and the Service (BLM 2014, pp. 8–12) and the Mountain Home Air Force Base Integrated Natural Resources Management Plan (INRMP; U.S. Air Force 2017, p. 192). Existing conservation measures include prescribing a minimum distance for the placement of salt and water troughs, identifying livestock use restrictions to reduce trampling of slick spots during wet periods, constructing fences, or potentially modifying current livestock use. We recognize the potential for negative impacts to slickspot peppergrass populations and slick spots that may result from seasonal, localized trampling events. However, under current management conditions, we do not consider livestock use to pose a significant threat to slickspot peppergrass. We encourage the continued implementation of conservation measures and associated monitoring to ensure potential impacts of livestock trampling to slickspot peppergrass are avoided or minimized.

Special management to protect the features essential to the conservation of slickspot peppergrass from the effects of residential and agricultural development may include the following: (1) creating managed plant reserves and open spaces, (2) limiting disturbances to and within suitable habitats, (3) increasing compliance inspections with livestock grazing permit holders, (4) requiring project fencing with adjacent construction activities, (5) disallowing new roads, and (6) evaluating the need for, and conducting, restoration efforts or revegetation of native plants in open spaces, plant preserves, or disturbed areas.

Special management to protect the features essential to the conservation of slickspot peppergrass from the effects of Owyhee harvester ant seed predation are addressed under the special management considerations for the current wildfire regime and invasive nonnative plants.

Finally, the protection of pollinators and their habitat is essential to the conservation of slickspot peppergrass. General pollinator management practices include: (1) maintaining a diversity of native plants with overlapping bloom times to provide flowers for foraging throughout the pollinators' active season, (2) nesting and egg-laying sites (*e.g.,* bare ground, hollow stems, bunchgrasses, and larval host plants), (3) sheltered, undisturbed places for overwintering, (4) a landscape free of pesticides and high levels of pathogens, and (5) connected habitat patches (The Xerces Society 2018, pp. 15–17).

The designation of critical habitat does not imply that lands outside of critical habitat do not play an important role in the conservation of slickspot peppergrass. Activities with a Federal nexus that may affect those areas outside of critical habitat, such as development, agricultural, or road construction activities, are still subject to review under section 7 of the Act if they may affect slickspot peppergrass.

Criteria and Methodology 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 not designating any areas outside the geographical area occupied by the species at the time of listing because we did not identify any unoccupied areas that were essential for the conservation of the species and, therefore, met the definition of critical habitat.

We delineated critical habitat units within the three geographic areas where slickspot peppergrass occurs in order to represent genetic variability across the species' range. These areas include the Foothills, the Snake River Plain, and the Jarbidge (USFWS 2020, p. 5). Each critical habitat unit contains polygons of critical habitat consisting of slickspot peppergrass populations known as Element Occurrences (EO) and associated pollinator buffers that extend 500 m (1,640 ft) from the outer edge of the EOs. EOs are based on the standards and methods developed by NatureServe (NatureServe 2002, entire; NatureServe 2020*a,* entire; NatureServe 2020*b,* entire) and adopted by the Idaho Department of Fish and Game (IDFG). Slickspot peppergrass EOs are groups of plants that occur within 1 km (0.6 mi) of each other. Therefore, an EO can consist of one occupied slick spot or several occupied slick spots aggregated into one EO providing they are within the 1-km (0.6 mi) distance of one another. IDFG botanists track EOs and enter them into the Idaho Fish and Wildlife Information System (IFWIS), which is managed by the IDFG. The IDFG uses NatureServe guidance (NatureServe 2020*b*) to rank slickspot peppergrass EOs. Information used to inform the rankings was based on a systematic assessment of field data collected from summer 2012 through spring 2016 (Kinter and Miller 2016), plus data provided to the IDFG by the BLM for surveys from 2016 to 2018.

As per the NatureServe guidance, IDFG botanists ranked slickspot peppergrass EOs based on three factors: size, condition, and landscape context (Kinter and Miller 2016, p. 3). Possible EO ranks include A, B, C, D, E, F, H, or X; higher rankings (the highest rank is A) indicate sites with greater habitat quality and larger population sizes, which we infer are more likely to persist and sustain the species. Rankings of B, BC, C, CD, and D refer to states of decreased abundance and quality of detectable plants, native plant community, habitat condition, and overall landscape context within 1 km (0.6 mi) of occupied slick spots. Areas ranked E are those records with confirmed slickspot peppergrass presence but for which no additional habitat information is available. Rankings of F indicate areas where slickspot peppergrass was previously found, but no individuals were found when last visited by a qualified surveyor. Areas ranked H indicate historical occurrences where old location information is too vague to allow the EO to be found again. Rankings of X denote extirpated occurrences due to habitat destruction associated with development or agricultural conversion.

We based our criteria for the identification of critical habitat on IDFG's EO rankings. EO rankings are used for assessing estimated viability or probability of persistence as well as for prioritizing conservation planning or actions (NatureServe 2020*b,* p. 2, 12). IDFG botanists ranked each EO and sub-EO (a smaller, distinct area within the EO that is delineated for localized management) based on measures of habitat quality (EO and sub-EO condition and surrounding landscape context) and species abundance. Weighted calculations used by the IDFG to determine the ranking of each EO and sub-EO were as follows:

- 33 percent of the EO ranking score was based on the EO/sub-EO size (highest number of plants observed in at least 1 of up to the past 6 years of available IDFG data);
- 45 percent of the EO ranking score was based on habitat condition within EOs/sub-EOs as documented during IDFG recent field reviews; and
- 22 percent of the EO ranking score was based on habitat condition of the landscape within 1 km (0.6 mi) of EOs/sub-EOs as documented during IDFG recent field reviews.

These IDFG rankings do not necessarily correlate directly to the PBFs. For example, as described above in *Summary of Essential Physical or Biological Features,* PBF 1(b) states that ecologically functional microsites or ''slick spots'' are characterized by sparse vegetation, with introduced, invasive, nonnative plant species cover absent or limited to low to moderate levels. However, the IDFG rankings do not directly measure invasive, nonnative plant cover within the actual slick spot. The assessments of condition were based mostly on the EO habitat surrounding the slick spots, which tended to be more invaded than the slick spots. So, even if a habitat ranking was characterized as moderately to highly invaded, the slick spots themselves often had very low amounts of invasive species (Kinter 2020, pers. comm.). Therefore, we used the IDFG rankings, which constitute the best available information, as surrogates to help us determine which EOs provided the PBFs essential to the conservation of the species (*i.e.,* the EOs most likely to provide for populations of slickspot peppergrass that will contribute to the conservation and recovery of the species).

Based on comments received during the public comment period on our revised proposed critical habitat rule (85 FR 44584, July 23, 2020), we reevaluated our criteria for determining which EOs contain PBFs and meet our definition of critical habitat. The proposed rule included slickspot peppergrass EOs with IDFG rankings of B, BC, C, and CD as designated critical habitat. However, in this final rule, we also included all areas that were occupied at the time of listing that are ranked D. Although some of the EOs with D rankings often have PBFs with degraded conditions and may need special management, we determined that including these lower ranked EOs is essential to the conservation of the species in part because we no longer have any excellent (A-ranked) or excellent to good (AB ranked) EOs, and we need these lower ranked EOs to increase the redundancy of populations across the species' range. Since 2006, there have been no A- or AB-ranked EOs of slickspot peppergrass (Kinter and Miller 2016, p. 8; Colket et al. 2006, p. 11; IFWIS database (IDFG Database 2021)). Ultimately, we conclude that every EO included in critical habitat was occupied at the time of listing and has one or more of the PBFs sufficient to justify designation.

Slickspot peppergrass is a species endemic to southwest Idaho with a relatively small geographic range and limited, finite habitat. Slick spot microsites are believed to have formed during the Pleistocene, and current climate conditions may not allow for the formation of new slick spots; therefore, the loss of slick spot microsites within the range of slickspot peppergrass seems to be permanent (USFWS 2020, pp. 6–7). A statistical analysis of 11 years of range-wide monitoring data demonstrated that across all three geographic areas, slickspot peppergrass is declining (Bond 2017, p. 11), and without new tools and management to reduce or ameliorate the primary threats (increased wildfire and invasive plants) to the species, slickspot peppergrass is predicted to continue to decline into the future (USFWS 2020, pp. 121, 124–130).

In addition, we expect climate change to magnify the severity and scope of the primary threats of changing wildfire regimes and invasive nonnative plants to slickspot peppergrass, thereby reducing resiliency, representation, and redundancy of slickspot peppergrass populations rangewide (USFWS 2020, pp. 79–82). In the 2009 listing rule (74 FR 52014, October 8, 2009), we did not consider climate change to represent a significant range-wide threat to slickspot peppergrass. However, information identified in the SSA indicates that climate change has already amplified the effects of wildfire and invasive, nonnative plants on slickspot peppergrass. Through its influence on the spread of invasive, nonnative annual grasses, climate change may have been a factor in the continuing downward trend in slickspot peppergrass population numbers observed over the past decade.

Elevations for slickspot peppergrass populations range from a low of 756 m (2,480 ft) at EO 68 south of New Plymouth, Idaho, in the Foothills geographic area to a high of 1,654 m (5,425 ft) at EO 97 south of the Juniper Butte Range in the Jarbidge geographic area. Both extremes of low- and high-elevation areas contain slickspot peppergrass populations assessed by IDFG as having good population viability (B-ranked), although the lower elevation populations of the Foothills geographic area are smaller in area and more isolated, likely due to more fragmented habitats. The current higher fragmentation levels and projected future increased risk for wildfire and invasive, nonnative plants (particularly cheatgrass) make lower elevation populations more vulnerable to the effects of climate change than the higher elevation populations in the Jarbidge geographic area because these threats are likely to be amplified in lower elevation areas as temperatures increase. Most plant species cannot naturally shift their geographic ranges fast enough to keep up with predicted high projected rates of climate change in most landscapes. However, by designating critical habitat in all three geographic areas (Foothills, Snake River Plain, and Jarbidge) where the species occurs, including all B–D ranked EOs as well as the 500-m (1,640-ft) pollinator buffer around designated EOs, we have determined that these areas will help support slickspot peppergrass under potential climate change scenarios in the future.

We also continue to include areas that may have been partially degraded in the past by threats such as wildfire. The Act defines critical habitat as 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 essential to the conservation of the species and which may require special management considerations or protections. A combination of special management activities such as habitat enhancement or threat-reduction actions may be appropriate to maintain (and possibly increase) slickspot-peppergrass population resiliency and species persistence over time. Including lower ranked EOs (CD and D) will help ensure we retain the flexibility to consider various paths to recovery. In summary, after considering the best available information, we determined that all

occupied slickspot peppergrass EOs ranked B–D contain one or more of the physical or biological features essential to the conservation of the species and, therefore, meet our definition of critical habitat.

We have determined that 113 EOs (42 B-ranked, 2 BC-ranked, 33 C-ranked, 7 CD-ranked, and 29 D-ranked) meet our criteria for critical habitat designation. These 113 EOs reflect the merging of 2 C-ranked EOs (EOs 19 and 41) into B-ranked EO 18, the addition of CD-ranked EOs 23 and 57 that were not included in the proposed rule (85 FR 44584, July 23, 2020), and the addition of 6 new EOs. These six EOs include EO 122 (Unit 3a; C rank) and EOs 123, 124, 727, 728, and 729 (Unit 4, B rank). These EOs were ranked by the IDFG after publication of our July 23, 2020, revised proposed rule (85 FR 44584) and meet our definition of critical habitat. EO 122 was occupied at the time of listing (2016). The other five EOs were found in 2017 and were likely occupied at the time of listing because these slick spots had not been surveyed prior to 2017, and slickspot peppergrass is not likely to colonize new areas to the extent to which these EOs were populated (number of plants ranged from 13 to 766 per EO) within a year. Therefore, all six EOs are included in our final critical habitat designation.

In the 2009 final listing rule (74 FR 52014, October 8, 2009), we described the total area of known EOs (that is, area covered by the EOs themselves) as being approximately 6,500 hectares (ha) (16,000 acres (ac)). This area reflected only the known locations of individuals of the plant, as recognized in the IDFG IFWIS database as of 2009, and is a small portion of the overall geographic range of the species. In the May 10, 2011, proposed critical habitat rule (76 FR 27184), we described in detail the criteria used to identify critical habitat, including a 250-m (820-ft) buffer around EO polygons to provide areas for pollinator support and to minimize disturbance to the plant's habitat. We have since reassessed the size of the pollinator buffer and, in this final rule, we are increasing the buffer around EOs to 500 m (1,640 ft) (see the section Physical or Biological Features Essential to the Conservation of the Species, above, for details).

In this final rule, we used Geographic Information System (GIS) software (ESRI ArcGIS 10.7.1) to more precisely map areas that meet the definition of critical habitat rather than the mapping methodology we used in our 2011 and 2014 proposed rules (76 FR 27184, May 10, 2011; 79 FR 8402, February 12, 2014), which used the Public Land Survey System Quarter-Quarter section method. The GIS-based method involves delineation of B- through D-ranked slickspot peppergrass EOs surrounded by 500-m (1,640-ft) pollinator buffers to create polygons of slickspot peppergrass critical habitat. In contrast, critical habitat maps in 2011 and 2014 were created by selecting all Quarter-Quarter sections that intersected with B- through CD-ranked EOs or their surrounding 250-m (820-ft) pollinator buffers. The use of Quarter-Quarter sections, which represent land survey boundaries rather than biologically based boundaries, resulted in large areas outside of the GIS-generated polygons being included as proposed critical habitat in the 2011 proposed critical habitat rule (76 FR 27184, May 10, 2011) and the 2014 revised proposed critical habitat rule (79 FR 8402, Feb. 12, 2014). Use of GIS-based information represents a more precise method of delineating critical habitat that does not include extraneous areas.

The use of B- through D-ranked EO polygons and their surrounding 500-m (1,640-ft) pollinator buffers to create a more biologically sound critical habitat designation method is feasible, and is consistent with current Service regulations (77 FR 25611, May 1, 2012; 81 FR 7414, Feb. 11, 2016; 84 FR 45020, August 27, 2019) as well as with other Service critical habitat rules (*e.g.,* White Bluffs bladderpod (78 FR 76995, December 20, 2013), Webber's ivesia (79 FR 32126, June 3, 2014), beardless chinchweed (86 FR 31830, June 15, 2021)).

When determining final 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 PBFs necessary for slickspot peppergrass. These areas lacking PBFs were identified in GIS using aerial imagery from the ArcGIS World Imagery layer, aerial imagery from Google Earth Pro, and the 2019 National Agricultural Imagery Program (NAIP) Idaho layer, which has a spatial resolution of a 60-centimeter ground sample distance. Areas that lacked PBFs were then manually clipped out of our critical habitat polygons. 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 final rule have been excluded by text in the final 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 PBFs in the adjacent critical habitat.

Therefore, we are designating as critical habitat lands that we determined were occupied at the time of listing (*i.e.,* currently occupied) and that contain one or more of the PBFs that are essential to support life-history processes of the species, and that may require special management considerations or protections. The four units each contain one or more of the physical or biological features that support multiple life-history processes for slickspot peppergrass.

The final critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, and presented at the end of this document under Regulation Promulgation. 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–R1–ES–2010–0071, and on our internet site here: *https://www.fws.gov/species/slickspot-peppergrass-lepidium-papilliferum.*

Final Critical Habitat Designation

We are designating approximately 31,569 ha (78,009 ac) of critical habitat in four units and seven subunits for slickspot peppergrass. The four units are the: (1) Payette and Gem Counties Unit, (2) Gem and Ada Counties Unit, (3) Ada and Elmore Counties Unit, and (4) Owyhee County Unit. Table 1 shows the critical habitat units and the approximate area of each unit. All units are considered occupied at the time of listing. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for slickspot peppergrass.

TABLE 1—CRITICAL HABITAT UNITS FOR SLICKSPOT PEPPERGRASS

[Area estimates reflect all critical habitat within critical habitat unit or subunit boundaries.]

Unit	Subunit	Federal land in hectares (acres)		Total land in hectares (acres)
		Bureau of Land Management	Bureau of Reclamation	
1–Payette and Gem Counties		695 (1,718)	9 (23)	704 (1,741)
2–Gem and Ada Counties	2a	874 (2,160)	0	874 (2,160)
	2b	5,423 (13,401)	0	5,423 (13,401)
	2c	657 (1,623)	0	657 (1,623)
	2d	1,689 (4,173)	18 (45)	1,707 (4,218)
	Unit 2 Total	8,643 (21,357)	18 (45)	8,661 (21,402)
3–Ada and Elmore Counties	3a	1,502 (3,711)	52 (128)	1,554 (3,839)
	3b	1,821 (4,502)	32 (80)	1,854 (4,582)
	3c	2,453 (6,062)	32 (80)	2,485 (6,142)
	Unit 3 Total	5,777 (14,275)	117 (288)	5,894 (14,563)
4–Owyhee County		16,310 (40,303)	0	16,310 (40,303)
Total		31,424 (77,652)	144 (356)	31,569 (78,009)

Notes: Area sizes may not sum due to rounding.

We present brief descriptions of all final critical habitat units, identify the EOs included in each, and provide the reasons why they meet the definition of critical habitat for slickspot peppergrass, below.

Unit 1: Payette and Gem Counties

Critical habitat in Unit 1 (Payette and Gem Counties Unit) consists of 704 ha (1,741 ac) located in portions of Payette and Gem Counties within the Foothills geographic area. The northern boundary of Unit 1 is approximately 7.0 km (4.3 mi) south of New Plymouth, Idaho. This unit contains five slickspot peppergrass EOs: 66, 68, 69, 70, and 114, all of which were occupied at the time of the species' listing. All designated critical habitat is federally managed by either the BLM Four Rivers Field Office area (695 ha (1,718 ac)) or the Bureau of Reclamation (BOR) (9 ha (23 ac)). We have excluded 76 ha (188 ac) of private land from portions of all five EOs in this unit (see *Exclusions Based on Other Relevant Impacts,* below). Unit 1 critical habitat polygons contain all PBFs: slick spot microsites, suitable vegetation composition and structure, sufficient habitat components to support insect pollinators, and insect pollinators to allow for sufficient fruit and seed production. Unit 1 is important to the conservation of the species because it contains the northernmost occurrences for slickspot peppergrass and potentially has the highest numbers of individual plants. This unit helps to maintain the geographic range of the species and provide opportunity for population growth. In Unit 1, special management considerations or protection of the PBFs may be required to address the threats posed by the current wildfire regime, invasive nonnative plant species, and incompatible livestock use. These threats are being addressed or coordinated with our partners, including the BLM and BLM livestock permittees, to implement needed actions for species recovery.

Unit 2: Gem and Ada Counties

Critical habitat in Unit 2 (Gem and Ada Counties Unit) consists of 8,661 ha (21,402 ac) divided into four subunits: 2a, 2b, 2c, and 2d. This unit contains 26 slickspot peppergrass EOs split among the 4 subunits. All designated critical habitat in this unit is federally managed by the BLM (8,643 ha (21,357 ac)) and BOR (18 ha (45 ac)). All subunits contain the PBFs essential to the conservation of the species, as described in more detail below. This unit is important to the conservation of slickspot peppergrass because it contains a large remaining intact area of sagebrush-steppe habitat that has experienced little impact from wildfire.

Subunit 2a

Subunit 2a lies within the Foothills geographic area and contains the city of Eagle, Idaho, and the southern boundary of the subunit is approximately 1.8 km (1.1 mi) northwest of Boise, Idaho. Subunit 2a contains five EOs: 52, 56, 76, 108 and 118, all of which were occupied at the time of the species' listing. Approximately 874 ha (2,160 ac) of subunit 2a are federally managed by the BLM. We have excluded 1,572 ha (3,886 ac) of private land and 41 ha (102 ac) of State land from portions of EOs 52, 56, 76, 108, and 118 and wholly from EOs 12, 23, 36, 38, 65, and 107 (see *Exclusions Based on Other Relevant Impacts,* below). Subunit 2a is important to the conservation of the species because it contains several large populations of slickspot peppergrass in the Foothills area. This subunit helps to maintain the geographic range of the species and provide opportunity for population growth. Subunit 2a critical habitat polygons contain one or more PBFs: slick spot microsites, suitable vegetation composition and structure, sufficient habitat components to support insect pollinators, and insect pollinators to allow for sufficient fruit and seed production. In Subunit 2a, special management considerations or protection of the PBFs may be required to address the threats posed by the current wildfire regime, invasive nonnative plant species, and incompatible livestock use. These threats are being addressed or coordinated with our partners, including the BLM and BLM livestock permittees, to implement needed actions for species recovery.

Subunit 2b

The northern boundary of Subunit 2b is approximately 3.2 km (2.0 mi) south of Kuna, Idaho, within the Snake River Plain geographic area. Critical habitat in Subunit 2b comprises 5,423 ha (13,401

ac) of federally managed BLM land and contains eight EOs: 18, 24, 25, 42, 43, 57, 58, and 105, all of which were occupied at the time of the species' listing. We have excluded 64 ha (159 ac) of private land and 171 ha (423 ac) of State land from portions of EOs 18 and 25 (see *Exclusions Based on Other Relevant Impacts,* below). BLM lands in Subunit 2b are within the Morley Nelson Snake River Birds of Prey National Conservation Area. This subunit is important to the conservation of the species because it contains EO 18, which supports high numbers of individual plants. Subunit 2b helps to maintain the geographic range of the species and provide opportunity for population growth. Although impacted from past fires, Subunit 2b critical habitat polygons contain one or more PBFs: slick spot microsites, suitable vegetation composition and structure, sufficient habitat components to support insect pollinators, and insect pollinators to allow for sufficient fruit and seed production. In Subunit 2b, special management considerations or protection of the PBFs may be required to address the threats posed by the current wildfire regime, invasive nonnative plant species, and incompatible livestock use. These threats are being addressed or coordinated with our partners, including the BLM and BLM livestock permittees, to implement needed actions for species recovery.

Subunit 2c

The northern boundary of Subunit 2c is approximately 6.0 km (3.7 mi) southwest of Boise, Idaho, within the Snake River Plain geographic area. It contains four EOs: 32, 48, 49, and 102, all of which were occupied at the time of the species' listing. Critical habitat in Subunit 2c consists of approximately 657 ha (1,623 ac) of BLM land within the Four Rivers Field Office area. We have excluded 793 ha (1,959 ac) of private land and 149 ha (367 ac) of State land from portions of EOs 32, 48, 49, and 102 and wholly from EOs 22, 64, and 101 (see *Exclusions Based on Other Relevant Impacts,* below). Subunit 2c is important to the conservation of the species because it provides for connectivity between the species' populations at the eastern and western portions of the species' range. This subunit helps to maintain the geographic range of the species and provide opportunities to expand populations. Subunit 2c critical habitat polygons contain one or more PBFs: slick spot microsites, suitable vegetation composition and structure, sufficient habitat components to support insect pollinators, and insect pollinators to allow for sufficient fruit and seed production. In Subunit 2c, special management considerations or protection of the PBFs may be required to address the threats posed by the current wildfire regime, invasive nonnative plant species, and incompatible livestock use. These threats are being addressed or coordinated with our partners, including the BLM and BLM livestock permittees, to implement needed actions for species recovery.

Subunit 2d

The northern boundary of subunit 2d is approximately 23.0 km (14.3 mi) southeast of Boise, Idaho, within the Snake River Plain geographic area. Subunit 2d contains nine EOs: 27, 28, 54, 67, 72, 77, 103, 104, and 119, all of which were occupied at the time of the species' listing. Critical habitat in Subunit 2d consists of approximately 1,707 ha (4,218 ac) of land managed by the BLM (1,689 ha (4,173 ac)) and the BOR (18 ha (45 ac)). We have excluded 112 ha (277 ac) of private land and 1,182 ha (2,921 ac) of State land from portions of EOs 27, 54, 67, 72, 77, 103, and 104 (see *Exclusions Based on Other Relevant Impacts,* below).

Subunit 2d is located, in part, within the boundary of the BLM Morley Nelson Snake River Birds of Prey National Conservation Area. This subunit helps to maintain the geographic range of the species and provide an opportunity to expand slickspot peppergrass populations. Subunit 2d critical habitat polygons contain one or more PBFs: slick spot microsites, suitable vegetation composition and structure, sufficient habitat components to support insect pollinators, and insect pollinators to allow for sufficient fruit and seed production. In Subunit 2d, special management considerations or protection of the PBFs may be required to address the threats posed by the current wildfire regime, invasive nonnative plant species, and incompatible livestock use. These threats are being addressed or coordinated with our partners, including the BLM and BLM livestock permittees, to implement needed actions for species recovery.

Unit 3: Ada and Elmore Counties

Critical habitat in Unit 3 (Ada and Elmore Counties Unit) consists of 5,996 ha (14,816 ac) within the Snake River Plain geographic area that is managed by the BLM (5,845 ha (14,444 ac)) and the BOR (150 ha (372 ac)). It contains three subunits: 3a, 3b, and 3c. This unit is composed of 26 slickspot peppergrass EOs. All subunits contain the PBFs essential to the conservation of the species, as described in more detail below. Unit 3 is important to the conservation of the species because it contains EOs with higher quality habitat, represents a substantial portion of the species' range, and contains several EOs with high numbers of slickspot peppergrass plants.

Subunit 3a

The northern boundary of Subunit 3a is approximately 6.3 km (3.9 mi) south of Mayfield, Idaho, while the southern boundary is approximately 19.6 km (12.2 mi) northwest of Mountain Home, Idaho. Subunit 3a is composed of seven EOs: 15, 20, 30, 31, 60, 112, and 122, all of which were occupied at the time of the species' listing. Critical habitat in Subunit 3a consists of approximately 1,554 ha (3,839 ac) of land managed by the BLM (1,502 ha (3,711 ac)) and the BOR (52 ha (128 ac)). We have excluded 1,059 ha (2,618 ac) of private land from portions of all seven EOs in this unit (see *Exclusions Based on Other Relevant Impacts,* below). Subunit 3a is bisected by Interstate 84 and old Highway 30; past burns and associated drill-seeding of crested wheatgrass (*Agropyron cristatum*) are evident in portions of this subunit. This subunit contains PBFs essential to the conservation of slickspot peppergrass. Subunit 3a is important to the conservation of the species because it contains some EOs supporting high numbers of slickspot peppergrass plants. This subunit helps to maintain the geographic range of the species and provide opportunity for population growth. Subunit 3a critical habitat polygons contain one or more PBFs: slick spot microsites, suitable vegetation composition and structure, sufficient habitat components to support insect pollinators, and insect pollinators to allow for sufficient fruit and seed production. Special management considerations or protection of the PBFs may be required in Subunit 3a to address the threats posed by the current wildfire regime, invasive nonnative plant species, incompatible livestock use, and off-road vehicle use. These threats are being addressed or coordinated with partners, including the BLM and BLM livestock permittees, to implement needed actions for species recovery.

Subunit 3b

The boundaries of Subunit 3b include the city of Mountain Home, Idaho, while the northern boundary is approximately 55.7 km (34.6 mi) southeast of Boise, Idaho. Subunit 3b is composed of 14 EOs: 10, 21, 29, 50, 51,

61, 62, 111, 113, 115, 116, 117, 120, and 121, all of which were occupied at the time of the species' listing. Critical habitat in Subunit 3b consists of approximately 1,957 ha (4,835 ac) of land managed by the BLM (1,890 ha (4,671 ac)) and the BOR (66 ha (164 ac)). We have excluded 185 ha (458 ac) of private land and 134 ha (330 ac) of State land from portions of EOs, 21, 50, 61, 62, 115, and 121 (see *Exclusions Based on Other Relevant Impacts,* below). BLM lands within Subunit 3b are located within both the Four Rivers Field Office area and the Morley Nelson Birds of Prey National Conservation Area. Subunit 3b is important to the conservation of the species because it provides connectivity between other units across the range of the species. This subunit helps to maintain the geographic range of the species and provide opportunity for population growth. Subunit 3b critical habitat polygons contain one or more PBFs: slick spot microsites, suitable vegetation composition and structure, sufficient habitat components to support insect pollinators, and insect pollinators to allow for sufficient fruit and seed production. Subunit 3b contained substantial biological soil crust cover and relatively low cheatgrass cover; however, a wildfire that occurred in the area in 2012 (USFWS 2013, p. 3) likely reduced habitat quality in the subunit. In Subunit 3b, special management considerations or protection of the PBFs may be required to address the threats posed by the current wildfire regime, invasive nonnative plant species, and incompatible livestock use. These threats are being addressed or coordinated with our partners, including the BLM and BLM livestock permittees, to implement needed actions for species recovery.

Subunit 3c

The southern boundary of Subunit 3c is approximately 1.6 km (1.0 mi) northeast of Hammett, Idaho, while the western boundary is 19.6 km (12.2 mi) southeast of Mountain Home, Idaho. This subunit is composed of four EOs: 8, 26, 63, and 106, all of which were occupied at the time of the species' listing. Critical habitat in Subunit 3c consists of approximately 2,485 ha (6,142 ac) of land managed by the BLM (2,453 ha (6,062 ac)) and the BOR (32 ha (80 ac)). We have excluded 643 ha (1,589 ac) of private land from portions of EOs 8, 26, and 63 (see *Exclusions Based on Other Relevant Impacts,* below). BLM lands in Subunit 3c are primarily within the Four Rivers Field Office area. Subunit 3c is important to the conservation of the species because it contains the most northeastern occurrences for slickspot peppergrass and has two EOs (8 and 26) with large numbers of plants. This subunit helps to maintain the geographic range of the species and provide opportunity for population growth. Subunit 3c critical habitat polygons contain one or more PBFs: slick spot microsites, suitable vegetation composition and structure, sufficient habitat components to support insect pollinators, and insect pollinators to allow for sufficient fruit and seed production. Biological soil crust cover is high in some areas of the subunit. In Subunit 3c, special management considerations or protection of the PBFs may be required to address the threats posed by the current wildfire regime, invasive nonnative plant species, incompatible livestock use, and recreational use. These threats are being addressed or coordinated with our partners, including the BLM and BLM livestock permittees, to implement needed actions for species recovery.

Unit 4: Owyhee County

Critical habitat in Unit 4 (Owyhee County Unit) consists of 16,310 ha (40,303 ac) of land managed by the BLM within the Jarbidge geographic area. The northern boundary of Unit 4 is approximately 83.8 km (52.1 mi) south of Mountain Home, Idaho, while the eastern boundary is 52.0 km (32.3 mi) west of Rogerson, Idaho. This unit is important to the conservation of slickspot peppergrass because it contains the largest amount of contiguous habitat with little fragmentation or development, helps to maintain the geographic range of the species, and provides an opportunity for population growth. In addition, it contains the most high-elevation habitat, which will be more resilient to climate change. This unit is composed of 24 EOs (EOs 73, 74, 75, 78, 79, 80, 81, 83, 84, 85, 87, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 123, 124) and 22 sub-EOs (sub-EOs 700, 701, 702, 703, 704, 705, 706, 708, 709, 712, 715, 716, 717, 719, 720, 721, 722, 725, 726, 727, 728, 729), which are components of the EO 16 metapopulation. The EO 16 metapopulation is a ''parent'' EO to all sub-EOs numbered 700 or greater. Each of these EOs and sub-EOs were occupied at the time of the species' listing. We have excluded 3 ha (7 ac) of private land and 1,059 ha (2,618 ac) of State land from portions of EOs 74, 75, 80, 83, 84, 85, 96, 97, 124, and sub-EOs 700–729 (see *Exclusions Based on Other Relevant Impacts,* below). Unit 4 critical habitat polygons contain all PBFs: slick spot microsites, suitable vegetation composition and structure, sufficient habitat components to support insect pollinators, and insect pollinators to allow for sufficient fruit and seed production. In Unit 4, special management considerations or protection of the PBFs may be required to address the threats posed by the current wildfire regime, invasive nonnative plant species, and incompatible livestock use. These threats are being addressed or coordinated with our partners, including the BLM and BLM livestock permittees, to implement needed actions for species recovery (portions of Unit 4 contain past drill-seedings of crested wheatgrass and other highly competitive nonnative species).

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 regulation with a revised 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 Act's 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 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. The Bureau of Land Management has conducted section 7 compliance on slickspot peppergrass

proposed critical habitat since it was initially proposed in 2011.

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 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, subsequent to the previous consultation: (1) if the amount or extent of taking specified in the incidental take statement is exceeded; (2) 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; (3) 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 (4) 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 the regulations also specify some exceptions to the requirement to reinitiate consultation on specific land management plans after subsequently listing a new species or designating new critical habitat. See the regulations for a description of those exceptions.

Application of the ''Destruction or 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 PBFs 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 we 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: Actions that would remove a significant number of slick spot microsites, a significant portion of remnant native sagebrush steppe habitat, or a significant amount of pollen and nectar source plants, and actions that would result in significant ground disturbance. Such activities could include, but are not limited to, residential and commercial development, infrastructure projects, and conversion to agricultural fields. These activities could permanently eliminate or reduce the habitat necessary for the growth and reproduction of slickspot peppergrass.

Exemptions

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

(1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;

(2) A statement of goals and priorities;

(3) A detailed description of management actions to be implemented to provide for these ecological needs; and

(4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, 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 geographic areas owned or controlled by the Department of Defense (DoD), or designated for its use, that are subject to an 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 proposed for designation.''

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed INRMPs developed by military installations located within the range of the proposed critical habitat designation for slickspot peppergrass to determine if they met the criteria for exemption from critical habitat under section 4(a)(3) of the Act. The following areas are designated for the use of DoD with completed, Service-approved INRMPs.

Approved INRMPs

Military activities within the range of slickspot peppergrass include ordnance-impact areas, training activities, and military development. Military-training activities occur at, or near, four EOs: three at the OCTC in the Snake River Plain area, and a portion of one EO at the U.S. Air Force Juniper Butte Range

in the Jarbidge area. INRMPs have been developed and implemented for both the Juniper Butte Range and the OCTC that include conservation measures for a suite of species including slickspot peppergrass. The INRMPs provide management direction and conservation measures to address or eliminate the effects from military-training exercises on slickspot peppergrass and its habitat. Both the Idaho Army National Guard (Kinter et al. 2014, p. i) and the U.S. Air Force (Conley 2018, p. 3) conduct annual monitoring to ensure impacts to the species due to training activities are either avoided or minimized. In addition, the Sikes Act requires that INRMPs and its effects be regularly reviewed every five years by the Service and appropriate state agencies.

Idaho Army National Guard—Orchard Combat Training Center

The Idaho Army National Guard's OCTC on the Snake River Plain has had an INRMP in place since 1991. Subsequent revisions and reviews were completed in 1997, 2004, and 2013 and included conservation benefits for slickspot peppergrass. Because the last INRMP revision was in 2013, the Idaho Army National Guard is in the process of reviewing and renewing the INRMP. In the meantime, OCTC is currently managed under an Operational INRMP that includes continued implementation of all slickspot peppergrass conservation measures from the 2013 INRMP until the INRMP revision and review is completed (Stitt 2022, in litt., entire).

In addition, the Idaho Army National Guard is adding approximately 11,505 ha (28,430 ac) of land to the OCTC under the revised INRMP (Stitt 2022, in litt., entire; IDARNG 2021, p. 1). This new area is called the Simco Training Area and contains 124 ha (307 ac) of land that meets the definition of slickspot peppergrass critical habitat but is exempted under the Operational INRMP (Stitt 2022, in litt., entire). These lands will be managed to avoid or minimize impacts on slickspot peppergrass, slick spot microsites, and sagebrush-steppe habitats.

With the addition of the Simco Training Area land, the OCTC contains 4,898 ha (12,102 ac) of occupied slickspot peppergrass habitat and represents a majority of the highest quality, occupied slickspot peppergrass habitat in the Snake River Plain area. The continuing high quality of this habitat indicates the conservation measures are effective in maintaining generally intact, native-plant vegetation and limiting anthropogenic disturbances on the OCTC (Sullivan and Nations 2009, p. 91).

The INRMP for the OCTC provides a framework for managing natural resources. Conservation measures included in the INRMP help the Idaho Army National Guard avoid or minimize impacts on slickspot peppergrass, slick spot microsites, and sagebrush-steppe habitat, while allowing for the continued implementation of the Idaho Army National Guard's mission. These measures include management actions such as restricting off-road motorized vehicle use, intensive wildfire suppression efforts, and the restriction of ground-operated military training to areas where the plants are not found. For example, the INRMP includes objectives for maintaining and improving slickspot peppergrass habitat and restoring areas damaged by wildfire. The plan specifies that the OCTC will use native species and broadcast seeding, collecting, and planting small amounts of native seed not commercially available, and will monitor the success of seeding efforts (Idaho Army National Guard (IDARNG) 2013, pp. 104, 107–108). Since 1991, the OCTC, using historical records, has restored several areas using native seed and vegetation that was present prior to past wildfires.

The Idaho Army National Guard continues to use restoration methods that avoid or minimize impacts to slickspot peppergrass or its habitat, with an emphasis on maintaining representation of species that were present in presettlement times (IDARNG 2013, p. 34). Since 1987, the Idaho Army National Guard has demonstrated that efforts to suppress wildfire, along with the use of native species with minimal ground-disturbing activities, are effective in reducing the wildfire threat, as well as in reducing rates of spread of nonnative, invasive species associated with wildfire management activities (IDARNG 2013, p. 34). In 2008, the Idaho Army National Guard also initiated maintenance on a series of identified fuel breaks on the OCTC. These fuel breaks are designed to act as barriers to prevent fires ignited by military training activities from spreading into adjacent slickspot peppergrass habitat (BLM 2008, p. 20).

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the Idaho Army National Guard's OCTC INRMP and that conservation efforts identified in the INRMP are being actively implemented, are effective, and will provide a benefit to slickspot peppergrass occurring in habitats within or adjacent to the OCTC. Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3)(B)(i) of the Act. Through use of GIS-based critical habitat designation methodology, we determined that 4,898 ha (12,102 ac) of habitat within the OCTC currently meet our definition of critical habitat; however, we are not including these 4,898 ha (12,102 ac) of habitat in the final critical habitat designation because of this exemption.

Mountain Home Air Force Base—Juniper Butte Range

The U.S. Air Force, Mountain Home Air Force Base, which includes the Juniper Butte Range in the Jarbidge area, has an INRMP that has been in place for this military training facility since 2004. The Mountain Home Air Force Base 2017 INRMP remains active (Echeverria 2022, pers. comm.). The U.S. Air Force manages occupied slickspot peppergrass habitat within the Juniper Butte Range. Conservation measures and implementation actions for slickspot peppergrass include reseeding disturbed areas with native vegetation, eradicating noxious weeds prior to their spreading, cleaning vehicles and equipment to remove nonnative invasive plants, avoiding pesticide use within 8 m (25 ft) of slick spots, and delaying livestock turnout onto the range if slick spot microsites are saturated (U.S. Air Force 2017, pp. 183–185, 189, 191–192, 200). The INRMP contains specific measures developed to minimize the impacts from military training at the local level, or general measures designed to improve the ecological condition of native, sagebrush-steppe vegetation at a landscape scale, inclusive of areas supporting slickspot peppergrass, while allowing for the continued implementation of the Air Force mission. For example, the U.S. Air Force has a number of ongoing efforts to address wildfire prevention and suppression on the entire 4,913 ha (12,141 ac) Juniper Butte Range. Prevention measures that are implemented on the Juniper Butte Range include reducing standing fuels and weeds, planting fire-resistant vegetation in areas with a higher potential for ignition sources, such as along roads, and using wildfire indices to determine when to restrict military activities when the wildfire hazard rating is extreme (U.S. Air Force 2017, pp. 215–218). As a result of implementing these measures, the threat from wildfire to slickspot peppergrass associated with U.S. Air Force training activities has been effectively reduced within the Juniper Butte Range.

Based on the above considerations, and in accordance with section

4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the U.S. Air Force INRMP for the Juniper Butte Range (Mountain Home Air Force Base) and that conservation efforts identified in the INRMP are being implemented, are effective, and will provide a conservation benefit to slickspot peppergrass occurring in habitats within or adjacent to the Juniper Butte Range. Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3)(B)(i) of the Act. Through use of our current GIS-based critical habitat mapping methodology, 4,150 ha (10,256 ac) within the Juniper Butte Range currently meet our definition of critical habitat; however, we are not including these 4,150 ha (10,256 ac) of habitat in the final critical habitat designation because of this exemption.

Considerations 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 Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act, 81 FR 7226 (Feb. 11, 2016) (2016 Policy)—both of which were developed jointly with the National Marine Fisheries Service (NMFS). 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 an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying 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.

We describe below the process that we undertook for taking into consideration each category of impacts and our analyses of the relevant impacts.

Exclusions Based on Economic Impacts

Section 4(b)(2) of the Act and the 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 economic analysis of the critical habitat designation and related factors (Industrial Economics (IEc) 2011). We made the draft analysis, dated July 22, 2011, available for public review and comment from October 26, 2011, through December 12, 2011 (76 FR 66250). Following the close of the comment period, we developed a final analysis (FEA, dated March 12, 2012) of the potential economic effects of the designation, taking into consideration the public comments and any new information (IEc 2012). In developing this final revised critical habitat designation, we found that the economic impacts will be similar to levels described in the 2012 FEA. Our rationale regarding the applicability of the 2012 FEA to this final critical habitat designation is described in further detail below.

The intent of the FEA is to evaluate the potential economic impacts associated with the designation of critical habitat for slickspot peppergrass. The analysis first describes existing conservation plans and other provisions that provide protection to slickspot peppergrass and its habitat. We consider these existing protections and conservation measures already in place—whether due to the listed status of the species, other statutory or regulatory provisions, or ongoing voluntary efforts—to be ''baseline'' protections for slickspot peppergrass that would contribute to both costs and conservation of the species even absent the designation of critical habitat. We analyze the incremental economic impact of the final critical habitat designation by comparing scenarios both ''with critical habitat'' and ''without critical habitat.'' The ''without critical habitat'' scenario is the ''baseline'' for the incremental analysis. The baseline, therefore, represents the impacts that would occur regardless of whether or not critical habitat is designated. The ''with critical habitat'' scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat above and beyond the baseline costs; these are the costs we consider in the final designation of critical habitat.

The FEA also addresses how potential economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation, and the potential effects of conservation activities on government agencies, private businesses, and individuals. The FEA measures the extent to which the designation may reduce economic efficiency associated with residential and commercial development and public projects and activities, such as economic impacts on transportation projects, Federal lands, small entities, and the energy industry. Decisionmakers can use this information to assess whether the effects of the designation might unduly burden a particular group or economic sector. Finally, the FEA considers potential economic impacts to activities from 2012 through 2031 (IEc 2012, p. 4–1). The FEA focuses analysis of the potential impacts on the following categories of activity:

(1) Wildfire and invasive nonnative species management;

(2) Commercial and residential development;

(3) Utility and transportation activities; and

(4) Livestock use.

The analysis concludes that critical habitat designation of slickspot peppergrass is not likely to affect levels of economic activity or conservation measures being implemented within the proposed critical habitat areas. The incremental impacts of critical habitat designation for slickspot peppergrass will likely be limited to additional administrative costs of section 7 consultations associated with considering the potential for adverse modification of critical habitat. The total value incremental impacts of critical habitat for slickspot peppergrass were estimated to be $161,000 (IEc 2012, p. 4–1). Therefore, the incremental costs associated with critical habitat are unlikely to exceed $100 million in any single year and, therefore, would not be significant (see *Executive Order (E.O.) 12866 Regulatory Planning and Review).*

The primary reason critical habitat is unlikely to generate economic impacts beyond administrative costs of consultation is that approximately 99 percent of the critical habitat is Federal land managed by the BLM, which is a party to a binding conservation agreement established for the purpose of slickspot peppergrass conservation. All projects and activities on these public lands within the critical habitat designation are already subject to section 7 consultation for slickspot peppergrass. The BLM currently consults for slickspot peppergrass on projects within 805 m (2,641 ft) around occupied slickspot peppergrass areas and implements conservation measures within these areas. As such, the BLM is currently implementing conservation within an area larger than the 500-m (1,640-ft) buffer area around occupied EOs that are included in the final critical habitat designation (IEc 2012, p. 3–3). Even though our final designation has changed since the FEA was published in 2012, we do not expect the changes to have any meaningful practical effect on consultation costs because the BLM, as the primary Federal action agency, continues to conduct section 7 consultation on the potential effects of their actions on the species to an additional 302 m (991 ft) beyond the 500-m (1,640-ft) final critical habitat buffer. As stated in the FEA, we do not expect additional conservation efforts as a result of designation of critical habitat since the conservation measures currently specified in the BLM's conservation agreement are being applied across BLM lands and are sufficiently protective to avoid adverse modification of slickspot peppergrass habitat (IEc 2012, p. ES–6). The BLM has indicated that any increase in cost associated with critical habitat section 7 compliance would be limited to increases in BLM staff costs, which have been minimal since 2012 when the economic analysis was completed, but not an increase in time needed to conduct section 7 compliance (Kershaw 2020, pers. comm.). Therefore, the conclusions of the 2012 final economic analysis still apply to the final designation of critical habitat.

In addition, the FEA notes that across the entire area proposed for critical habitat designation, project proponents and land managers are already aware of the presence of the listed slickspot peppergrass EOs and the requirement to consult on projects with a Federal nexus that may affect the species or its habitat. The IDFG IFWIS database has mapped slickspot peppergrass habitat, and this information is made available to landowners and project proponents. In addition, previous proposed slickspot peppergrass critical habitat rules, which included maps of occupied EOs, along with a current range map, are available on the Service's website at *https://www.fws.gov/species/slickspot-peppergrass-lepidium-papilliferum.* Proponents of activities with a Federal nexus are, therefore, already undertaking section 7 consultations that consider potential impacts on slickspot peppergrass (IEc 2012, p. ES–6).

Non-Federal lands are excluded from the final critical habitat designation. Therefore, section 7 consultation of slickspot peppergrass critical habitat is not required on these lands, and thus there is no incremental impact of the designation of slickspot peppergrass critical habitat on non-Federal lands. Potential impacts from projects with a Federal nexus that may affect slickspot peppergrass plants on non-Federal land will continue to be subject to section 7 consultation to ensure that those projects do not jeopardize the continued existence of the species. Given that all projects and activities occurring on public lands within critical habitat are already subject to section 7 consultation for the species, and non-Federal lands have been excluded from final critical habitat designation, we conclude that the incremental impacts of our final designation of critical habitat for slickspot peppergrass will similarly be limited to the additional administrative costs of section 7 consultations associated with considering the potential for adverse modification of critical habitat, and that administrative costs of section 7 consultations will not appreciably change from levels described in the 2012 final economic analysis.

We considered the economic impacts of the critical habitat designation. The Secretary is not exercising her discretion to exclude any areas from this designation of critical habitat for slickspot peppergrass based on economic impacts.

A copy of the FEA with supporting documents may be obtained by contacting the Idaho Fish and Wildlife Office (see **ADDRESSES**) or by downloading from the internet at *https://www.regulations.gov* (search for docket number FWS–R1–ES–2010–0071).

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), 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 excluding 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. All lands within the designation of critical habitat for slickspot peppergrass owned or managed by DoD or DHS are already exempted from the designation under section 4(a)(3)(B)(i). Consequently, the designation of critical habitat for the slickspot peppergrass will not have an impact on national security or homeland 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 discussed above. Other relevant impacts may include, but are not limited to, impacts to Tribes, States, local governments, public health and safety, community interests, the environment (such as increased risk of wildfire or pest and invasive species management), Federal lands, and conservation plans, agreements, or partnerships. To identify other relevant impacts that may affect the exclusion analysis, we consider a number of factors, including whether there are permitted conservation plans covering the species in the area, such as habitat conservation plans, safe harbor agreements, 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 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. In addition, 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 PBFs; 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 our four final critical habitat units are appropriate for exclusion from the 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 or Agreements and Partnerships, in General

We sometimes exclude specific areas from critical habitat designations based in part on the existence of private or other non-Federal conservation plans or agreements and their attendant partnerships. A conservation plan or agreement describes actions that are designed to provide for the conservation needs of a species and its habitat and may include actions to reduce or mitigate negative effects on the species caused by activities on or adjacent to the area covered by the plan. Conservation plans or agreements can be developed by private entities with no Service involvement or in partnership with the Service.

We evaluate a variety of factors to determine how the benefits of any exclusion and the benefits of inclusion are affected by the existence of private or other non-Federal conservation plans or agreements and their attendant partnerships when we undertake a discretionary section 4(b)(2) exclusion analysis. A non-exhaustive list of factors that we will consider for non-permitted plans or agreements is shown below. These factors are not required elements of plans or agreements, and all items may not apply to every plan or agreement.

(i) The degree to which the plan or agreement provides for the conservation of the species or the essential physical or biological features (if present) for the species.

(ii) Whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan or agreement will be implemented.

(iii) The demonstrated implementation and success of the chosen conservation measures.

(iv) The degree to which the record of the plan supports a conclusion that a critical habitat designation would impair the realization of benefits expected from the plan, agreement, or partnership.

(v) The extent of public participation in the development of the conservation plan.

(vi) The degree to which there has been agency review and required determinations (*e.g.,* State regulatory requirements), as necessary and appropriate.

(vii) Whether National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) compliance was required.

(viii) Whether the plan or agreement contains a monitoring program and adaptive management to ensure that the conservation measures are effective and can be modified in the future in response to new information.

For the slickspot peppergrass, we have evaluated these factors with respect to Idaho State Endowment Lands and to private lands.

Idaho State Endowment Lands: In the July 23, 2020, revised proposed rule (85 FR 44584), we identified approximately 1,200 ha (2,965 ac) of State of Idaho Endowment (State) lands as critical habitat in Units 2, 3, and 4. In this final rule, we considered comments received on the proposed rule and used the best available science to identify critical habitat, which resulted in 2,736 ha (6,761 ac) of State land meeting our definition of critical habitat.

In response to our May 10, 2011, proposed critical habitat rule (76 FR 27184), we received a request from the State of Idaho to exclude State lands covered by their candidate conservation agreement (CCA). The BLM, State of Idaho Governor's Office of Species Conservation (OSC), IDFG, IDL, Idaho National Guard, and several nongovernmental cooperators signed a CCA in 2003 (State of Idaho et al. 2003, entire) and renewed the plan in 2006 (State of Idaho et al. 2006, entire). The Service did not sign the CCA but provided technical advice towards its development (State of Idaho et al. 2006, entire). Finally, this 2006 CCA should not be confused with CCAs developed between the Service and Federal partners, or with a candidate conservation agreement with assurances that is developed between the Service and non-Federal entities.

The CCA as signed in 2006 included range-wide efforts intended to achieve the following goals: address the need to maintain and enhance slickspot peppergrass habitat; reduce intensity, frequency, and size of natural- and human-caused wildfires; minimize loss of habitat associated with wildfire suppression activities; reduce the potential for invasion by nonnative plant species after wildfire; minimize habitat loss associated with rehabilitation and restoration techniques; minimize the establishment of invasive nonnative species; minimize habitat loss or degradation from off-highway vehicle use; mitigate the negative effects of military training and other associated activities on the OCTC; and minimize the impact of ground disturbances caused by livestock trampling saturated soils (State of Idaho et al. 2006, p. 3). Some specific conservation measures the BLM and

State of Idaho have implemented to help reduce, and continue to reduce, the risk of livestock-related disturbances include working with livestock permittees to place salt and supplements to draw livestock away from EOs, avoiding livestock trailing through EOs when soils are saturated, delaying livestock turnout when soils are saturated, and confining vehicle use to established roads and tracks within EOs (USFWS 2020, p 101).

In the July 23, 2020, revised proposed critical habitat rule (85 FR 44584), we requested information with respect to the ongoing implementation of the 2006 CCA and the performance or completion of any additional activities that provide for the conservation of slickspot peppergrass under the CCA. Based on current information and any information submitted during the comment period, we stated we would consider whether to exclude under section 4(b)(2) of the Act State lands that are covered by the CCA. During the comment period, the State of Idaho (OSC and IDL) stated that IDL continues to implement conservation measures outlined in the 2006 CCA on State lands designated as revised proposed critical habitat (OSC 2020, p. 6). To memorialize the State of Idaho's commitment to implementing ongoing conservation measures on State lands, the State of Idaho (IDL and OSC) and the Service entered into a new conservation agreement in 2021 for the continued conservation of slickspot peppergrass on State lands managed by IDL (USFWS et al. 2021, entire).

The purpose of the new conservation agreement is to ''provide a framework for communication, coordination, cooperation, and implementation of conservation actions between the Service, OSC and IDL for the conservation of slickspot peppergrass and its habitat on State endowment lands managed by IDL'' (USFWS et al. 2021, p. 1). Roles and responsibilities of IDL under this conservation agreement include addressing the primary threats of wildfire and invasive annual grasses to slickspot peppergrass through the support of Rangeland Fire Protection Associations (RFPA) and the implementation of fuel-management activities, such as through grazing, fuel breaks, and post-fire restoration activities; including terms and conditions in grazing leases within slickspot peppergrass habitat to minimize impacts from livestock grazing; and working adaptively with the Service, OSC, and other partners to address habitat and management concerns for the species. The OSC has committed to continue addressing the primary threats to slickspot peppergrass through supporting RFPA's fuel management activities; working with grazing permittees, private landowners, and citizens of Idaho; and working adaptively with IDL, the Service, and other partners to support slickspot peppergrass recovery efforts. We have committed to assist OSC and IDL with monitoring as staffing and funding allows; to maintain close communication to share management concerns, latest science, and funding opportunities; and to continue working adaptively with IDL, OSC, and other partners to support slickspot peppergrass recovery efforts. The agreement will be reviewed by all parties at least once every five years, and the parties will sign an addendum to document their review.

Benefits of Inclusion—Idaho State Lands: As discussed above, the primary benefit that the species receives when the Service includes State lands in critical habitat is the statutory mandate that Federal actions must avoid the destruction or adverse modification of critical habitat. In the case of slickspot peppergrass, we found it unlikely that activities outside of Federal lands (*e.g.,* development on State, local, or private lands) will have a Federal nexus to trigger section 7 consultation (IEc 2012, p. 4–4). In addition, since all habitat proposed for designation is occupied by the species, even if section 7 consultation were to occur, we anticipate critical habitat will not affect the outcome of these consultations. Because such a consultation would not change the conservation measures requested, any conservation measures would be required as a result of the species' listing status and the critical habitat designation would require no additional measures (IEc 2012, p. 4–4). Therefore, we find there is limited, if any, regulatory benefit to the species from inclusion of State lands due to protection from adverse modification or destruction as a result of actions with a Federal nexus.

The educational benefit of mapping the habitat essential for the recovery of slickspot peppergrass on State lands is limited. The economic analysis on the proposed designation reports, ''As the location of occupied habitat for the species on private lands is well-known, having been mapped by the Idaho Natural Heritage Program, it is unlikely that critical habitat will provide new information to local land managers and developers regarding the presence of the species'' (IEc 2012, p. 4–14). Because the State is already aware of the presence of slickspot peppergrass and its conservation needs on their lands and is already implementing positive conservation actions for the benefit of the species, we conclude there is little, if any, educational benefit from designating critical habitat for this species on State lands. Furthermore, we are not aware of any additional State, County, or Federal conservation benefits to the species that would be triggered by the critical habitat designation. Based on the above, we conclude there is, at best, a very limited conservation benefit to including the 2,736 ha (6,761 ac) of Idaho State lands within the designation of critical habitat for slickspot peppergrass.

Benefits of Exclusion—Idaho State Lands: The State of Idaho requested that we exclude lands owned and managed by the IDL. They stated that the proposed critical habitat designation for slickspot peppergrass has the potential to negatively impact the ability of the Department of Lands to achieve its mission (which per their website is to manage Idaho's endowment assets to maximize long-term financial returns to public schools and other trust beneficiaries and to provide professional assistance to the citizens of Idaho to use, protect, and sustain their natural resources (IDL 2022, no pagination). They argue that their mission would be affected by reducing the current economic activities of State endowment trust lands and limiting future opportunities for activities. The State further claims that, because all of the State endowment lands within the critical habitat area are leased for grazing, the State would realize a loss of revenue from the impacted lands based on an assumption that the BLM would ban or restrict grazing by requiring additional fencing or limiting turnout, resulting in an inability to lease their trust lands at their current value (OSC 2011, pp. 3, 14–15). The State was a signatory to the now-expired 2006 CCA for slickspot peppergrass and has affirmed that it is carrying out conservation actions outlined in the 2006 CCA for the benefit of the species on their lands (IEc 2012, p. 3–6; OSC 2020, p. 6). The State of Idaho (IDL and OSC) entered into a new conservation agreement with the Service in 2021 to further conservation for slickspot peppergrass on land under the jurisdiction of the IDL (USFWS et al. 2021, entire); the new agreement is similar to the 2006 CCA.

Our economic analysis of the proposed designation of critical habitat for slickspot peppergrass does not support the State's argument in full. The State was a signatory to the CCA for slickspot peppergrass and has affirmed that it is carrying out the conservation

measures provided therein on their lands (IEc 2012, p. 3–6; OSC 2020, p. 6). The CCA provides livestock management measures that we considered adequate to offset the threat that grazing might pose to the species (74 FR 52014, October 8, 2009, p. 52040). As noted above, we found it is unlikely that activities outside of Federal lands would trigger a section 7 consultation. However, in the event that such a nexus should occur, we note that any recommended measures would be made for the conservation of the species regardless of the critical habitat designation and would thus be considered baseline protections for the species. In other words, any such measures would not be attributable to effects of critical habitat but on the listed species itself (IEc 2012, p. 3–14). In contrast to the assertion of the State regarding potential lost revenue due to grazing restrictions as a result of critical habitat, the economic analysis confirmed that the BLM is in agreement that including within the critical habitat designation lands managed by the State's Department of Lands would not affect the types of conservation measures implemented to avoid impacts of livestock use on slickspot peppergrass and its habitat (IEc 2012, p. 3–13). Examples of negative impacts of critical habitat provided by the State, such as delayed turnout of cattle, are impacts that are attributable to conservation measures already in place for the protection of the species and, therefore, are not attributable to critical habitat. The economic analysis indicated that the costs of critical habitat designation are limited to the additional administrative costs of section 7 consultations associated with considering the potential for adverse modification of critical habitat and does not identify any impact on the economic activities of State trust lands or revenues associated with grazing leases that may be attributable to the designation (IEc 2012, p. ES–5).

We do agree, however, that there is some potential for reduction in value of the State's trust lands for future exchange, due to the perception that such lands may be encumbered by additional regulatory restrictions due to the designation of critical habitat. The final economic analysis of the designation states, ''In some cases, the public may perceive that critical habitat designation may result in limitations on private property uses above and beyond those associated with anticipated conservation efforts and regulatory uncertainty described above. Public attitudes about the limits or restrictions that critical habitat may impose can cause real economic effects to property owners, regardless of whether such limits are actually imposed'' (IEc 2012, p. 2–10). The avoidance of any potential reduction in the value of State trust lands could be a benefit of exclusion from critical habitat.

In addition, in weighing the benefits of inclusion versus exclusion, we considered the value of our conservation partnership with the State of Idaho. They have demonstrated success by partnering with public and private entities to further conservation in Idaho for a variety of fish and wildlife species (Uriarte 2021, pers. comm.). These efforts include, but are not limited to, helping to develop a CCA and conservation agreement for slickspot peppergrass (State of Idaho et al. 2006, entire; USFWS et al. 2021, entire); leading the Sage-grouse Actions Team to strategically put State legislative funding and partner funding on the ground for the conservation of the greater sage-grouse (*Centrocercus urophasianus*); and working closely with IDL and nine RFPAs to provide State legislative funding to ensure these organizations have the necessary equipment for early, initial attack and wildfire suppression efforts.

The State was an active signatory to the CCA for slickspot peppergrass between the State (IDL and OSC), BLM, Idaho National Guard, and private landowners (State of Idaho et al. 2006, entire). This 2006 CCA contains measures intended to address the need to maintain and enhance slickspot peppergrass habitat by minimizing the impact to the species from wildfires, implementing rehabilitation and restoration techniques, managing invasive nonnative species, and limiting off-highway vehicle use and livestock use (State of Idaho et al. 2006, p. 3). Since 2006, the CCA appears to have reduced the impacts of livestock use on slickspot peppergrass (USFWS 2020, pp. 100–101) but has been less effective at reducing or eliminating the most significant threats to the species from wildfire and invasive annual grasses (USFWS 2020, p. 165). The State of Idaho confirms that they continue to implement conservation measures of the CCA on State lands proposed for critical habitat designation (IEc 2012, p. 3–6; OSC 2020, p. 6). In addition, in the State's comments submitted on the proposed rule (85 FR 44584, July 23, 2020), they highlight the importance of the conservation measures implemented through the CCA, particularly regarding livestock management.

In 2021, OSC, IDL, and the Service entered into a conservation agreement to further conservation for slickspot peppergrass on IDL lands (USFWS et al. 2021, entire). This conservation agreement contains conservation measures targeted to reduce threats to slickspot peppergrass that would not be implemented if not for this conservation agreement or a Federal nexus requiring section 7 consultation. This conservation agreement also builds upon conservation measures in the 2006 CCA by identifying additional roles and responsibilities for IDL, OSC, and the Service to more effectively address the primary threats of wildfire and annual invasive grasses to slickspot peppergrass (USFWS et al. 2021, entire). Lastly, the conservation agreement emphasizes continued communication, coordination, cooperation, and implementation of slickspot peppergrass conservation measures by the Service, OSC, and IDL. On State lands, these protections are equal to or better than what the designation of critical habitat would provide, as described above under ''Benefits of Inclusion.'' Exclusion of these State lands from critical habitat will help maintain and strengthen our conservation partnership with the State of Idaho and may foster future partnerships for the benefit of other species as well.

Based on the above, we find that the exclusion of State lands from the final designation would have the following benefits:

- Avoidance of any possible reduction in the value of State trust lands due to public perception of increased potential for regulatory restrictions due to critical habitat;
- Continued implementation of conservation measures provided in the 2021 conservation agreement for slickspot peppergrass, including but not limited to minimizing the impact of ground disturbance by livestock, minimizing the establishment of nonnative plant species, and reducing the intensity, frequency, and size of natural and human-caused fires;
- The opportunity to build upon a positive conservation partnership with the State, by recognizing the efforts the State contributes to the conservation of slickspot peppergrass;
- Laying the foundation for future partnerships with the State that would benefit other listed or candidate species, such as the greater sage-grouse; and
- Increasing the potential for understanding and acceptance of proposed critical habitat designations for other species in the State of Idaho.

Based on the above considerations, we conclude there are important benefits to be gained by excluding the 2,736 ha (6,761 ac) of State lands within

the designation of critical habitat for slickspot peppergrass.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Idaho State Lands: We reviewed and evaluated the benefits of inclusion and the benefits of exclusion of State lands identified in the proposed designation of critical habitat for slickspot peppergrass; the benefits of inclusion for the species are minimal. As noted in *Exclusions Based on Economic Impacts,* we do not anticipate additional regulatory protections from critical habitat designation through a Federal nexus on these State lands (IEc 2012, pp. 4–4, C–2). As the State is already aware of the presence of slickspot peppergrass on their lands, the educational value of critical habitat is minimal (IEc 2012, p. 4–4), particularly since the State participates in conservation measures for the protection of the species through the conservation agreement (USFWS et al. 2021, entire). We do not find evidence of any significant benefits to inclusion of State lands in the designation.

We find that the benefits of exclusion, on the other hand, are significant. The benefits that would stem from the exclusion of State lands would be to alleviate any concerns that State trust lands could decline in value due to perceived regulatory restrictions, as well as to strengthen our conservation partnership with the State by recognizing their efforts toward conservation of slickspot peppergrass through implementation of the conservation measures provided in the conservation agreement. The exclusion of State trust lands could lay the groundwork for future partnerships for the benefit of other species in conservation need. Because of the importance of State trust lands to the State of Idaho, and the relevant impact of critical habitat to our relationship with the State and other current and future conservation partnerships, we have determined that the benefits of excluding these State lands outweigh the benefits of including them in the designation of critical habitat.

Exclusion Will Not Result in Extinction of the Species—Idaho State Lands: We have determined that the exclusion of 2,736 ha (6,761 ac) of habitat from the final designation of critical habitat for slickspot peppergrass will not result in extinction of the species. Although these lands were identified as critical habitat because they contain PBFs essential to the conservation of the species, State lands comprised approximately 7 percent of the proposed designation and the remaining land in the final designation is sufficient for the conservation of the species. Furthermore, critical habitat is one tool in the suite of tools that together provide for conservation of listed species under the Act. Most of the current and ongoing interagency conservation efforts for the species are focused on management of Federal lands, which contain the vast majority of occupied slickspot peppergrass habitat. The consultation requirements of section 7(a)(2) and the attendant requirement to avoid jeopardy to slickspot peppergrass for projects with a Federal nexus will provide significant protection to the species, particularly since approximately 86 percent of its occupied habitat is on Federal lands managed by the BLM. In addition, the State of Idaho is a signatory to the 2021 conservation agreement, which provides protective measures to the species on their lands regardless of critical habitat. Therefore, based on the above discussion, the Secretary is exercising her discretion to exclude approximately 2,736 ha (6,761 ac) of habitat from this final critical habitat designation.

Private Lands: In our July 23, 2020, revised proposed critical habitat rule (FR 85 44584), we identified 1,122 ha (2,773 ac) of private land, including municipal land (county and city), that met the definition of critical habitat. In this final rule, we considered comments received on the proposed rule and used the best scientific information available to identify critical habitat, which resulted in identification of 4,508 ha (11,141 ac) of privately owned land that meets the definition of critical habitat. The majority of the land that met the definition of critical habitat (approximately 86 percent) was under Federal ownership. In our July 23, 2020, revised proposed critical habitat rule (85 FR 44584), we considered applying section 4(b)(2) of the Act to exclude currently occupied private and municipal lands (hereafter private lands). We also requested specific information concerning any current signed conservation or management plans on private lands that we should consider to inform an exclusion analysis under section 4(b)(2).

During the public comment period for our July 23, 2020, revised proposed critical habitat rule (85 FR 44584), the State of Idaho commented that a critical habitat designation provides no new conservation measures across any land ownership. In addition, they stated that designating private land as critical habitat can cause land values to decrease and possibly expose slickspot peppergrass to threats that cannot be addressed by a section 7 consultation. For these reasons, the State of Idaho expressed the view that the benefits of exclusion outweigh the benefits of including private land in the final critical habitat designation for slickspot peppergrass (OSC 2020, p. 2).

Since publication of our July 23, 2020, revised proposed rule (85 FR 44584) to designate critical habitat for slickspot peppergrass, we entered into a Memorandum of Understanding (MOU) with the State of Idaho's OSC to provide non-Federal landowners (private and municipal) an opportunity to enter into voluntary conservation agreements for slickspot peppergrass (USFWS and OSC 2021, entire). These conservation agreements can serve to memorialize existing conservation efforts and outline commitments to maintain suitable habitat for the species on specified lands into the future.

Benefits of Inclusion—Private Lands: The primary benefit that slickspot peppergrass would receive from inclusion of private lands in the critical habitat designation is the statutory mandate that Federal actions (or actions with a Federal nexus) avoid the destruction or adverse modification of critical habitat. However, in the case of slickspot peppergrass, we found it unlikely that activities outside of Federal lands (*e.g.,* development on State, local, or private lands) will have a Federal nexus to trigger section 7 consultation (IEc 2012, p. 4–4). Given that there has been only one section 7 consultation on private lands associated with Federal permitting and we have no information to indicate a projected increase in federally funded activities on these lands, we anticipate that there is a low likelihood of section 7 consultations concerning slickspot peppergrass on private lands in the future. Should additional section 7 consultations occur after this final critical habitat designation, we expect that critical habitat would not likely affect the outcome of future consultations as we do not foresee any differences in recommended conservation measures for units designated as critical habitat and those occupied by the species (IEc 2012, pp. 4–4 and 4–5). Therefore, we find there is little regulatory benefit to the species on private lands from inclusion due to protection from adverse modification or destruction of critical habitat as a result of actions with a Federal nexus.

Any educational benefit of mapping the habitat essential for the recovery of slickspot peppergrass on private lands is likely minimal and may in fact serve as a conservation disincentive. The economic analysis on the proposed designation reports, ''As the location of occupied habitat for the species on private lands is well-known, having

been mapped by the Idaho Natural Heritage Program, it is unlikely that critical habitat will provide new information to local land managers and developers regarding the presence of the species'' (IEc 2012, p. 4–14). Therefore, we expect very little educational benefit to result from the designation of critical habitat on private lands.

Based on the above, we conclude there is little, if any, conservation benefit to including the 4,508 ha (11,141 ac) of privately owned lands within the designation of critical habitat for slickspot peppergrass.

Benefits of Exclusion—Private Lands: Slickspot peppergrass was the subject of a CCA between the State of Idaho, BLM, the Idaho Army National Guard, and private landowners (State of Idaho et al. 2006, entire). The CCA was developed prior to the listing of the species to provide the opportunity for adaptive management for slickspot peppergrass on Federal, State, and private lands, with the goal of maintaining and enhancing slickspot peppergrass habitat; reducing the intensity, frequency, and size of fires; reducing the potential for invasion from nonnative plant species; minimizing the impact of ground disturbance caused by livestock trampling events when soils are saturated; and other provisions.

This CCA garnered interest from private landowners. Twenty individual nongovernmental cooperators/permittees were signatories to this CCA, along with representatives from the BLM, State of Idaho, and Idaho National Guard (State of Idaho et al. 2006, pp. 138–141). Six individual private landowners signed on through Memorandum of Agreements (MOAs) under the CCA covering 6,898 ha (17,045 ac). These MOAs detailed specific conservation measures to implement on enrolled private lands (State of Idaho et al. 2006, p. 162), which included monitoring, livestock and pasture management, and invasive weed control (State of Idaho et al. 2006, pp. 282–285). The CCA and its conservation measures, since expired, were developed in an effort to preclude the need to list slickspot peppergrass.

As stated above, the Service and State of Idaho recently entered into a new MOU in 2021 whose purpose is to provide non-Federal landowners (private and municipal) the opportunity to enter into voluntary conservation agreements for slickspot peppergrass that can serve to memorialize existing conservation efforts and outline commitments to maintain suitable habitat for slickspot peppergrass on specified lands into the future. This MOU contains roles and responsibilities for the Service and the State of Idaho, including outreach, providing technical assistance to landowners, maintaining membership on the slickspot peppergrass Technical Team, and exploring funding sources to obtain financial assistance to implement conservation actions on private and municipal lands. The MOU also contains responsibilities for monitoring to document and report success, along with adaptive management that ensures current science is incorporated into management. In addition, there is a non-exhaustive list of proven and effective Best Management Practices for conserving slickspot peppergrass and its habitat that can be included in individual conservation agreements with private and municipal landowners (USFWS and OSC 2021, entire; USFWS 2020, p. 101). Therefore, we find that a conservation benefit would accrue to slickspot peppergrass over time by encouraging voluntary participation in the measures provided in the MOU and landowner-specific conservation agreements.

In addition, we considered the value of our conservation partnership with private landowners within the range of the slickspot peppergrass in our weighing of the benefits of inclusion versus exclusion. Private landowners have demonstrated success by partnering with public and private entities to further conservation in Idaho for a variety of wildlife and fish species (Uriarte 2021, pers. comm.).

In addition, we considered the value of our conservation partnership with the State of Idaho in our weighing of benefits of inclusion versus exclusion of private lands. The State of Idaho has been instrumental in working with private landowners on various conservation efforts throughout Idaho. These partnering efforts include, but are not limited to, helping to develop the 2006 CCA for slickspot peppergrass; leading the Sage-grouse Actions Team to strategically put State legislative funding and partner funding on the ground for the conservation of the greater sage-grouse; and working closely with IDL and nine RFPAs to provide State legislative funding to ensure these organizations have the necessary equipment and coordination for initial attack and wildfire suppression efforts (Uriarte 2021, pers. comm.).

The final economic analysis of the designation states, ''In some cases, the public may perceive that critical habitat designation may result in limitations on private property uses above and beyond those associated with anticipated conservation efforts and regulatory uncertainty described above. Public attitudes about the limits or restrictions that critical habitat may impose can cause real economic effects to property owners, regardless of whether such limits are actually imposed'' (IEc 2012, p. 2–10). Although the economic analysis concluded that any real economic impacts to private landowners are unlikely given the low probability of a Federal nexus occurring on their lands, it is clear from comments we received that critical habitat is nonetheless perceived as an example of Federal Government intrusion into private property rights in the State of Idaho. As described above, we find that successful conservation partnerships with private landowners are integral to the achievement of recovery for the slickspot peppergrass and designation of critical habitat could be detrimental to those efforts. Therefore, we conclude that the exclusion of private lands from slickspot peppergrass critical habitat will achieve greater benefits than designating critical habitat by encouraging continued conservation of the species as well as future conservation efforts due to the perceived avoidance of a regulatory burden.

Based on the above, we have determined that the exclusion of private lands from the final designation would have several potentially significant benefits:

- Demonstrating the Service's good-faith effort to recognize the value of voluntary conservation partnerships by excluding private lands from critical habitat, and encouraging future partnerships that would benefit other listed or candidate species, such as the greater sage grouse;
- The conservation benefit that would accrue to slickspot peppergrass over time by encouraging voluntary participation in the measures provided in the MOU;
- The opportunity to maintain and build positive conservation partnerships with private landowners, by recognizing the efforts these parties may contribute to the conservation of slickspot peppergrass; and
- Improving the perception of the Service as not imposing unnecessary regulatory burdens on private landowners, potentially increasing the understanding and acceptance of proposed critical habitat designations for other species in the State of Idaho.

We conclude that there are important conservation benefits that may be gained by excluding the 4,508 ha (11,141 ac) of privately owned lands within the designation of critical habitat for slickspot peppergrass, stemming

primarily from the encouragement of future conservation partnerships.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Private Lands: We reviewed and evaluated the benefits of inclusion and the benefits of exclusion of privately owned lands identified in the proposed designation of critical habitat for slickspot peppergrass. As articulated above, the benefits of inclusion for the species are minimal at best. We expect that critical habitat would not likely affect the outcome of future consultations as we do not foresee any differences in recommended conservation measures for units designated as critical habitat and those occupied by the species. Therefore, we do not anticipate any regulatory protections stemming from a Federal nexus on private lands through designation of critical habitat. As most landowners likely are already aware of the presence of slickspot peppergrass on their lands, the educational value of critical habitat is minimal. In addition, as many private landowners view the presence of a listed species on their property as a liability, information to this effect may even be a conservation disincentive. Therefore, we consider any possible benefits of inclusion to be minimal.

The benefits of exclusion, on the other hand, are significant. Exclusion of these private lands would help build landowner trust, encourage increased cooperation with private landowners, encourage implementation of any ongoing and new voluntary measures identified in the MOU for the conservation of slickspot peppergrass, and potentially enable us to pursue future conservation partnerships on privately owned lands—not only for slickspot peppergrass, but for other candidate or listed species in the State of Idaho as well.

Some of the comments received during the public comment period indicated strong support for the exclusion of these lands from the final critical habitat designation. We are committed to fostering working relationships with communities, including these private landowners, to foster the conservation of slickspot peppergrass and other threatened and endangered species. Therefore, in consideration of the relevant impact to our relationship with these private landowners and other current and future conservation partnerships, and for other reasons mentioned above, we determined that the benefits of excluding these lands outweigh the benefit of including them in the designation of critical habitat for the slickspot peppergrass.

Exclusion Will Not Result in Extinction of the Species—Private Lands: We determined that the exclusion of 4,508 ha (11,141 ac) of habitat from the final designation of critical habitat for slickspot peppergrass will not result in the extinction of the species. Although these lands were identified as critical habitat because they contain PBFs essential to the conservation of the species, private lands comprise less than 12 percent of the areas that meet the definition of critical habitat. Most of the current and ongoing interagency conservation efforts for the species are focused on management of Federal lands, where approximately 86 percent of the habitat occupied by slickspot peppergrass occurs. The consultation requirements of section 7(a)(2) and the attendant requirement to avoid jeopardy to slickspot peppergrass for projects with a Federal nexus will provide significant protection to the species even after excluding these areas. In addition, conservation of slickspot peppergrass through implementation of the MOU with the State of Idaho and private landowners will provide more effective conservation for the species than a critical habitat designation. Therefore, based on the discussion above, the Secretary is exercising her discretion to exclude approximately 4,508 ha (11,141 ac) of habitat from this final critical habitat designation.

Summary of Exclusions

As discussed above, based on the information provided by entities seeking exclusion, as well as any additional public comments 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. We have determined that certain areas totaling 7,265 hectares, or 17,956 acres, within the critical habitat units were appropriate for exclusion from this final designation. Table 2 shows the areas we are excluding from critical habitat designation for slickspot peppergrass.

TABLE 2—AREAS EXCLUDED FROM CRITICAL HABITAT DESIGNATION FOR SLICKSPOT PEPPERGRASS

Critical habitat unit	Critical habitat subunit	Ownership in hectares (acres)		Totals
		State of Idaho	Private	
1–Payette and Gem Counties		0	76 (188)	76 (188)
2–Gem and Ada Counties	2a	41 (102)	1,573 (3,886)	1,614 (3,988)
	2b	171 (423)	64 (159)	235 (582)
	2c	149 (367)	793 (1,959)	942 (2,326)
	2d	1,182 (2,921)	112 (277)	1,294 (3,198)
3–Ada and Elmore Counties	3a	0	1,059 (2,618)	1,059 (2,618)
	3b	134 (330)	185 (458)	319 (788)
	3c	0	643 (1,589)	643 (1,589)
4–Owyhee County		1,059 (2,618)	3 (7)	1,062 (2,625)
Total		2,736 (6,761)	4,508 (11,141)	7,244 (17,902)

Notes: Area sizes may not sum due to rounding. All excluded areas meet the definition of critical habitat.

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 (E.O.) 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 following 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 will be directly regulated by this 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, we certify that this critical habitat designation will not have a significant economic impact on a substantial number of small entities.

During the development of this final rule, we reviewed and evaluated all information submitted during the comment period on the July 23, 2020, proposed rule (85 FR 44584) that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this critical habitat designation will not have a significant economic impact on a substantial number of small entities, and 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 the designation of this critical habitat would significantly affect energy supplies, distribution, or use. Furthermore, although it does include areas where powerlines and power facility construction and maintenance may occur in the future, it will not produce a Federal mandate of $100 million or greater in any year, that is, it is not a 'significant regulatory action' under the Unfunded Mandates Reform Act. 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 findings:

(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 this rule will significantly or uniquely affect small governments because it will not produce a Federal mandate of $100 million or greater in any year, that is, it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments and, as such, 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 slickspot peppergrass in a takings implications assessment. The Act does not authorize us 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 and concludes that this designation of critical habitat for slickspot peppergrass 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 in Idaho. 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 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 critical habitat 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 PBFs 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 final 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 rule identifies the elements of PBFs 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 designating critical habitat under 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 Secretarial 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 have determined that no Tribal lands fall within the boundaries of the final critical habitat for slickspot peppergrass, so no Tribal lands would be affected by the critical habitat designation.

References Cited

A complete list of references cited in this rulemaking is available on the internet at *https://www.regulations.gov* in Docket No. FWS–R1–ES–2010–0071 and upon request from the Idaho Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this rulemaking are the staff members of the Idaho Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we hereby 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; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

■ 2. Amend § 17.12, in paragraph (h) in the List of Endangered and Threatened Plants, by revising the entry for ''*Lepidium papilliferum*'' to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Scientific name	Common name	Where listed	Status	Listing citations and applicable rules
FLOWERING PLANTS				
*	*	*	*	*
Lepidium papilliferum	Slickspot peppergrass	Wherever found	T	74 FR 52014, 10/8/2009; 81 FR 55058, 8/17/2016; 50 CFR 17.96(a).[CH]
*	*	*	*	*

■ 3. Amend § 17.96(h), by adding an entry for ''Family Brassicaceae: *Lepidium papilliferum* (slickspot peppergrass)'' after the entry for ''Family Brassicaceae: *Leavenworthia texana* (Texas golden gladecress)'' to read as follows:

§ 17.96 Critical habitat—plants.

(a) *Flowering plants.*

* * * * *

Family Brassicaceae: *Lepidium papilliferum* (Slickspot Peppergrass)

(1) Critical habitat units are depicted for Ada, Elmore, Gem, Owyhee, and Payette, Counties, Idaho, on the maps in this entry.

(2) Within these areas, the specific physical or biological features (PBFs) essential to the conservation of slickspot peppergrass consist of four components:

(i) Ecologically functional microsites or ''slick spots'' that are characterized by:

(A) A high sodium and clay content, and a three-layer soil profile, which allows for successful seed germination, seedling growth, and maintenance of the seed bank. The surface horizon consists of a thin, silty vesicular, pored (small cavity) layer that forms a physical crust (the silt layer). The subsoil horizon is a restrictive clay layer, with an abruptic (referring to an abrupt change in texture) boundary with the surface layer, that is natric or natric-like in properties (a type of argillic (clay-based) horizon with distinct structural and chemical features); this is the restrictive layer. The second argillic subsoil layer (that is less distinct than the upper argillic horizon) retains moisture through part of the year (the moist clay layer).

(B) Sparse vegetation, with invasive, nonnative plant species cover absent or limited to low to moderate levels.

(ii) Relatively intact, native Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) vegetation assemblages, represented by native bunchgrasses, shrubs, and forbs, within 500 m (1,640 ft) of slickspot peppergrass element occurrences to protect slick spots and slickspot peppergrass from disturbance from wildfire, slow the invasion of slick spots by nonnative plant species and native harvester ants, and provide the habitats needed by slickspot peppergrass' pollinators.

(iii) A diversity of native plants whose blooming times overlap to provide pollinator species with flowers for foraging throughout the seasons and to provide nesting and egg-laying sites; appropriate nesting materials; and sheltered, undisturbed places for hibernation and overwintering of pollinator species. In order for genetic exchange of slickspot peppergrass to occur, pollinators must be able to move freely between slick spots. Alternative pollen and nectar sources (other plant species within the surrounding sagebrush vegetation) are needed to support pollinators during times when slickspot peppergrass is not flowering, when distances between slick spots are long, and in years when slickspot peppergrass is not a prolific flowerer.

(iv) Sufficient pollinators for successful fruit and seed production, particularly pollinator species of the sphecid and vespid wasp families, species of the bombyliid and tachnid fly families, and halictid bee species, most of which are solitary insects that nest outside of slick spots in the surrounding sagebrush-steppe vegetation, both in the ground and within the vegetation.

(3) Critical habitat does not include human-made structures (such as buildings, aqueducts, runways, roads, and other paved areas), cultivated agricultural fields, areas dominated by turf grass such as parks, and the land on which they are located existing within the legal boundaries on June 5, 2023.

(4) Data layers defining map units were developed using ESRI ArcGIS 10.7.1 mapping software along with various spatial layers. Feature class data for element occurrences (EOs) were derived from the Idaho Department of Fish and Game's Idaho Fish and Wildlife Information System (IFWIS) database (July 2021). EOs were depicted as points or polygons in the IFWIS database, and an E.O. could consist of one or more points or polygons. For ArcGIS analyses, we dissolved a 500-m (1,640-ft) exterior insect pollinator buffer on each point or polygon that comprised an E.O. and calculated acreages based on these dissolved, buffered polygons. Overlapping polygons were merged to prevent a double count of critical habitat hectares. Critical habitat polygon outlines are exaggerated (using 1- or 2-point size,

depending on map scale) to allow for better visibility. The critical habitat polygons were then overlaid upon aerial imagery, including the ArcGIS World Imagery layer, aerial imagery from Google Earth Pro, and the 2019 National Agricultural Imagery Program Idaho layer, which has a spatial resolution of a 60-centimeter ground sample distance.

(i) Lands that visually lacked the necessary PBFs were manually removed from the critical habitat polygons; any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule are excluded by this text and are not designated as critical habitat. Areas that lack PBFs include land covered in human-made structures (such as buildings, roads, runways, and other paved areas), cultivated farmland, and riparian areas.

(ii) 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 the Service's internet site at *https://www.fws.gov/species/slickspot-peppergrass-lepidium-papilliferum,* at *https://www.regulations.gov* at Docket No. FWS–R1–ES–2010–0071, and at the Idaho Fish and Wildlife Office. 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.

(5) Index map follows:

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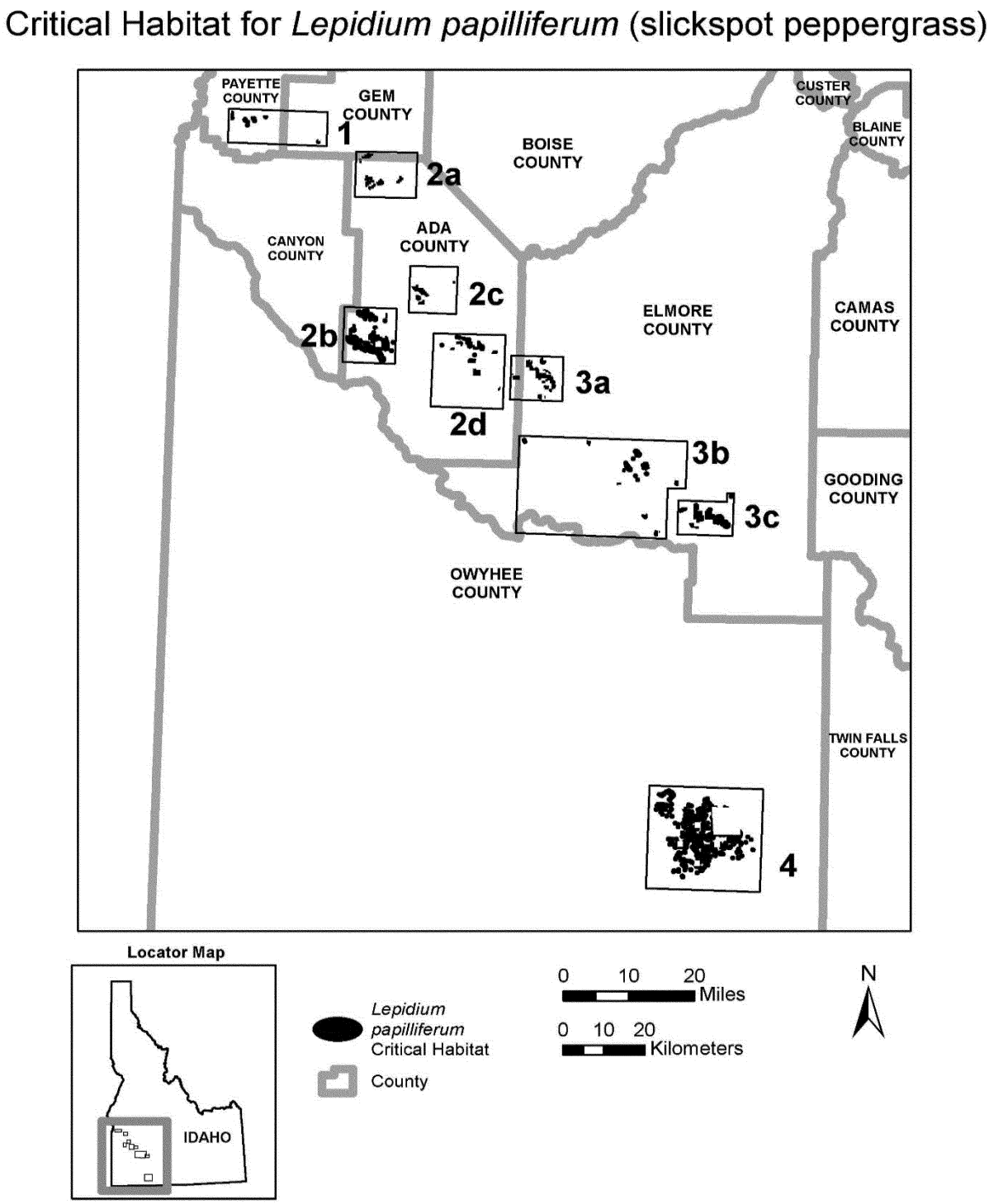
Figure 1 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (5)



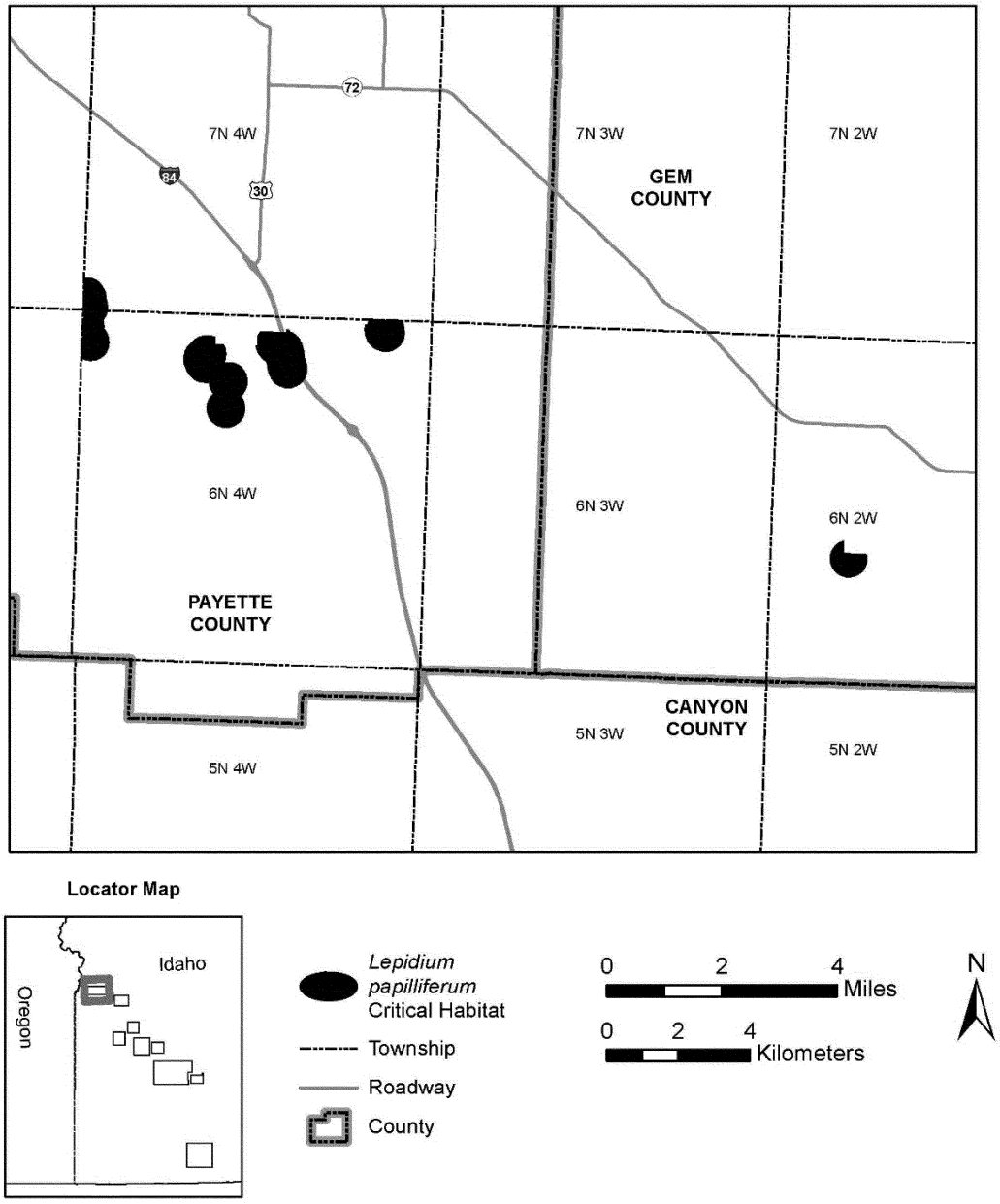
(6) *Unit 1:* Payette and Gem Counties, Idaho.

(i) *General Description:* Unit 1 contains 704 ha (1,741 ac) of critical habitat in Payette and Gem Counties, Idaho, consisting of Bureau of Land Management (BLM) land in the Four Rivers Field Office area (695 ha (1,718 ac)) and Bureau of Reclamation (BOR) land (9 ha (23 ac)).

(ii) Map of Unit 1 follows:

Figure 2 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (6)(ii)

Critical Habitat for *Lepidium papilliferum* (slickspot peppergrass)
Unit 1

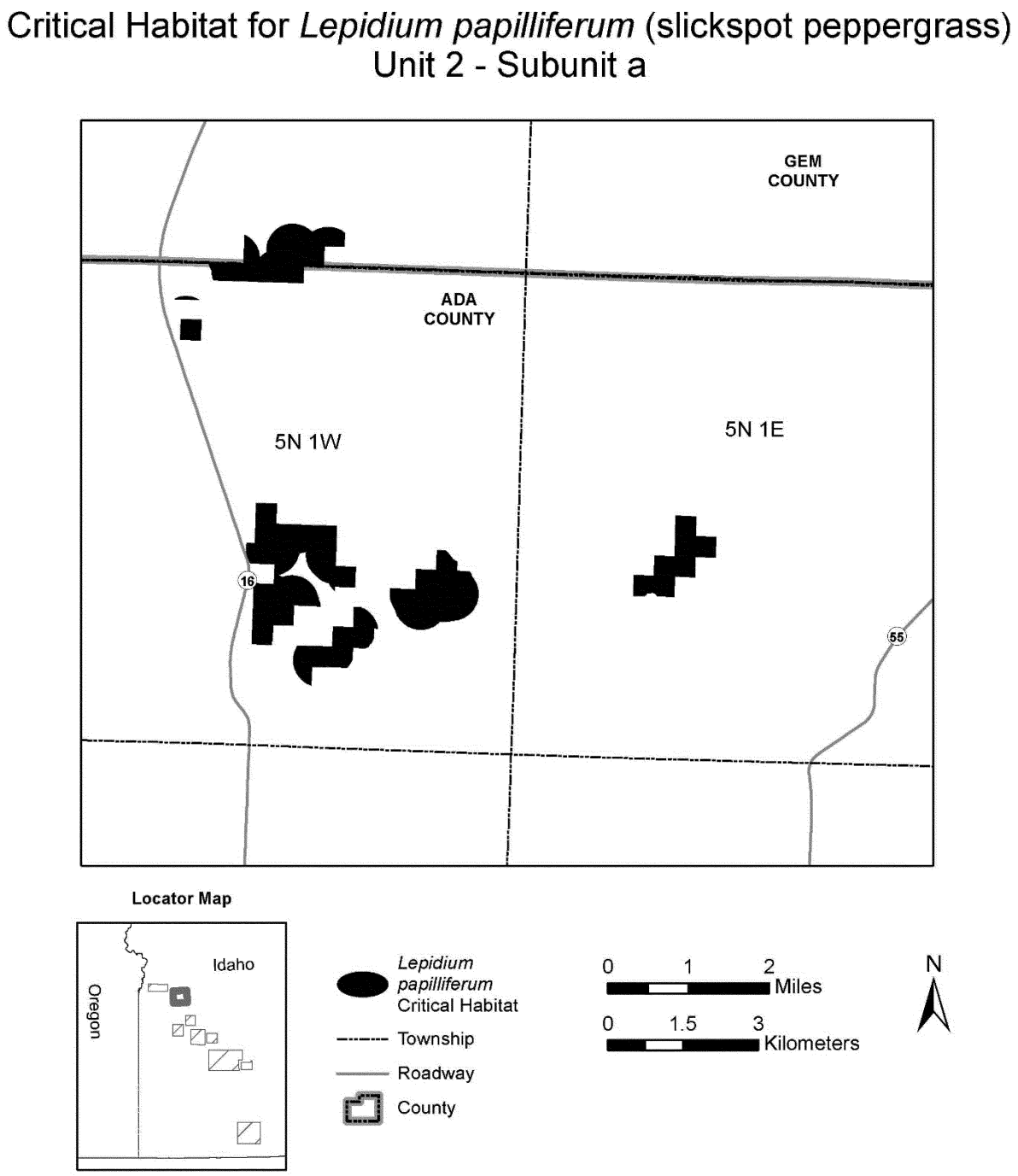


(7) *Unit 2:* Gem and Ada Counties, Idaho.

(i) *Subunit 2a General Description:* Subunit 2a contains 874 ha (2,160 ac) of critical habitat on BLM land in Gem and Ada Counties, Idaho.

(ii) Map of Unit 2, Subunit 2a follows:

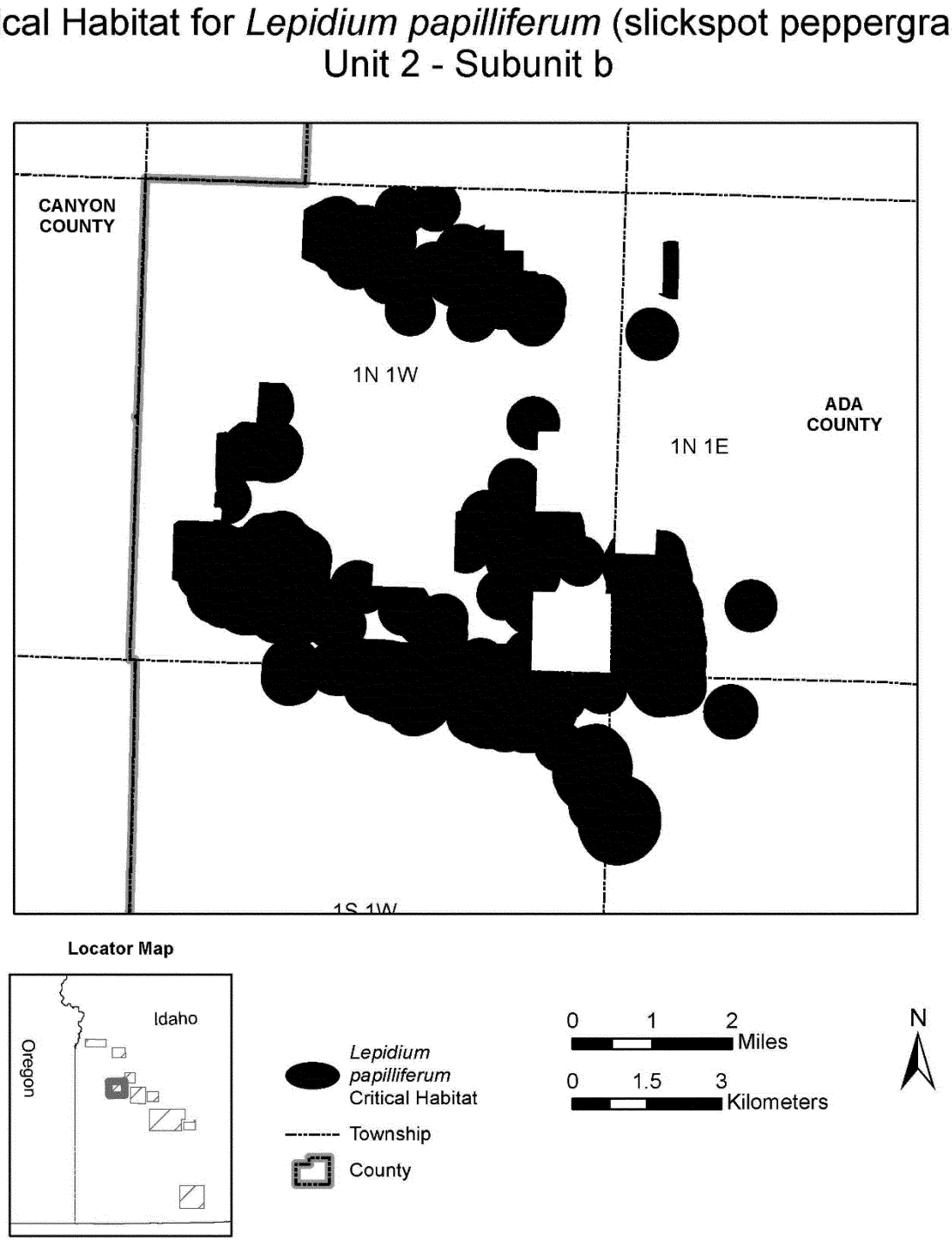
Figure 3 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (7)(ii)



(iii) *Subunit 2b General Description:* Subunit 2b contains 5,423 ha (13,401 ac) of critical habitat in Ada County, Idaho, within the BLM's Morley Nelson Snake River Birds of Prey National Conservation Area south of Kuna, Idaho.

(iv) Map of Unit 2, Subunit 2b follows:

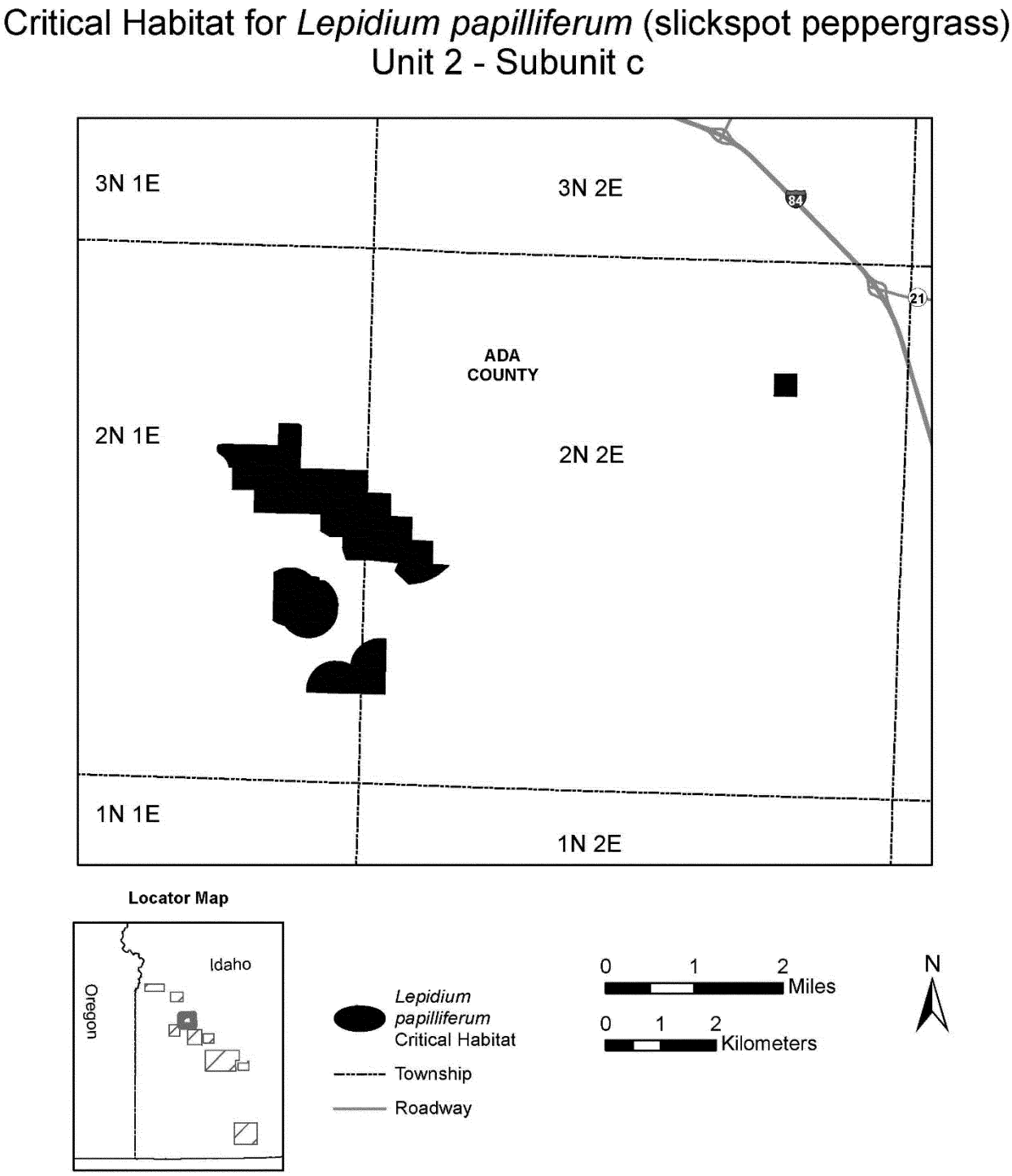
Figure 4 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (7)(iv)



(v) *Subunit 2c General Description:* Subunit 2c contains 657 ha (1,623 ac) of critical habitat in Ada County, Idaho, on BLM land within the Four Rivers Field Office area.

(vi) Map of Unit 2, Subunit 2c follows:

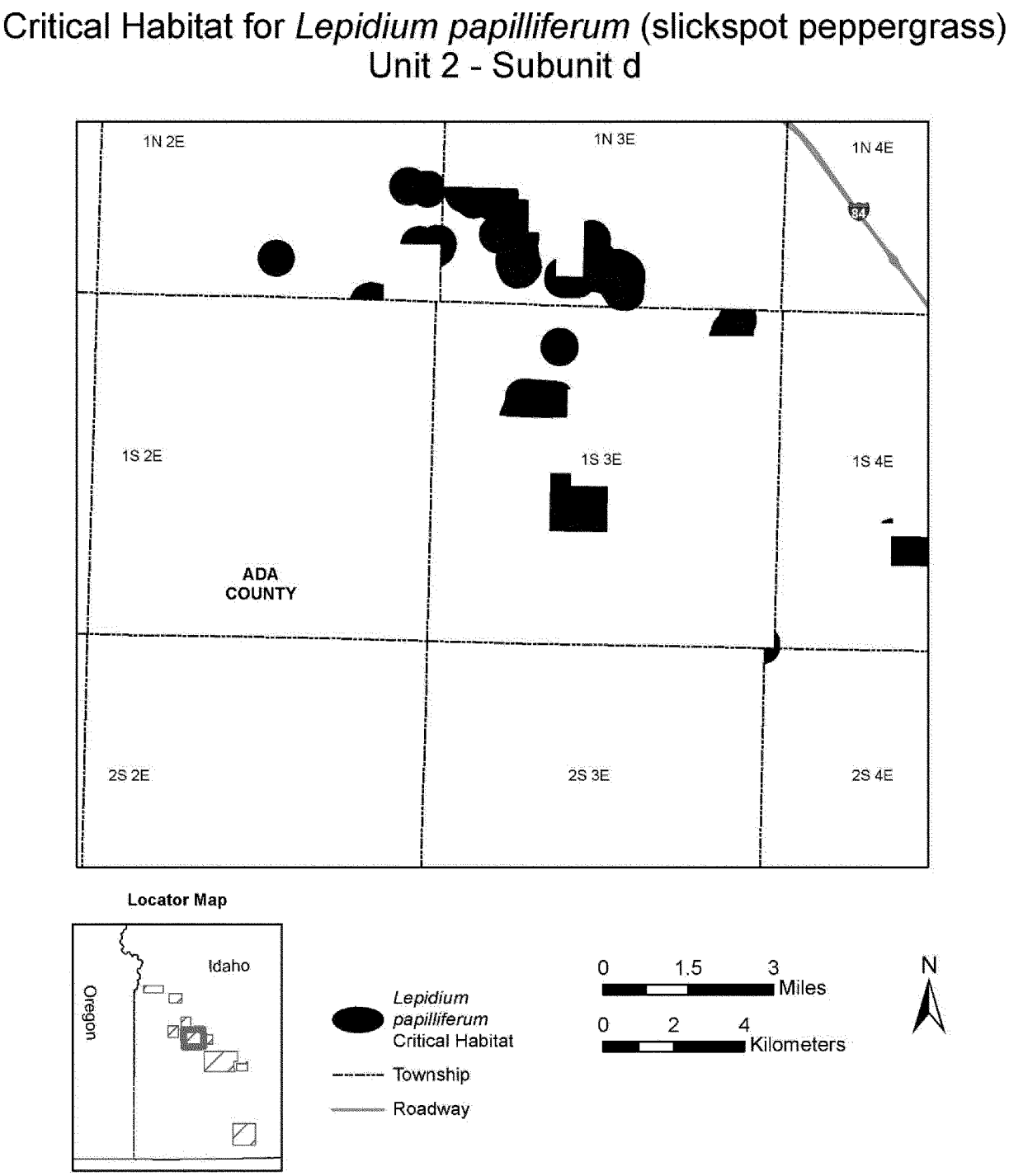
Figure 5 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (7)(vi)



(vii) *Subunit 2d General Description:* Subunit 2d contains 1,707 ha (4,218 ac) of critical habitat in Ada County, Idaho, consisting of BLM land (1,689 ha (4,173 ac)) and BOR land (18 ha (45 ac)). Critical habitat within Subunit 2d is adjacent to the Idaho Army National Guard-administered Orchard Combat Training Center (formerly known as the Orchard Training Area).

(viii) Map of Unit 2, Subunit 2d follows:

Figure 6 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (7)(viii)

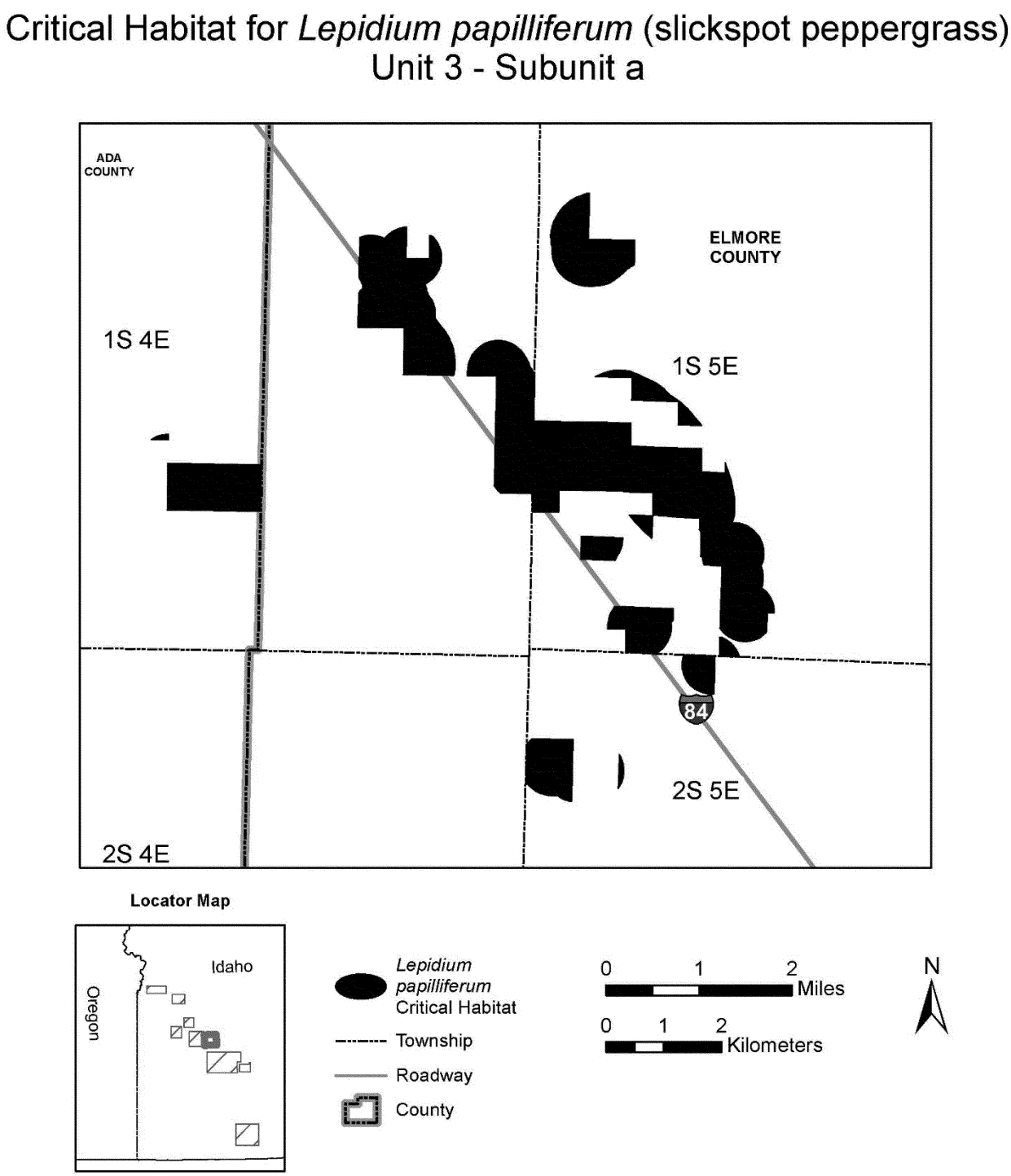


(8) *Unit 3:* Ada and Elmore Counties, Idaho.

(i) *Subunit 3a General Description:* Subunit 3a contains 1,554 ha (3,839 ac) of critical habitat in Ada and Elmore Counties, Idaho, consisting of BLM, Four Rivers Field Office area land (1,502 ha (3,711 ac)) and BOR land (52 ha (128 ac)).

(ii) Map of Unit 3, Subunit 3a follows:

Figure 7 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (8)(ii)



(iii) *Subunit 3b General Description:* Subunit 3b contains 1,957 ha (4,835 ac) of critical habitat in Elmore County, Idaho, consisting of BLM land (1,890 ha (4,671 ac)) and BOR land (66 ha (164 ac)). BLM land includes the Four Rivers Field Office area and the Morley Nelson Birds of Prey National Conservation Area.

(iv) Map of Unit 3, Subunit 3b follows:

Figure 8 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (8)(iv)

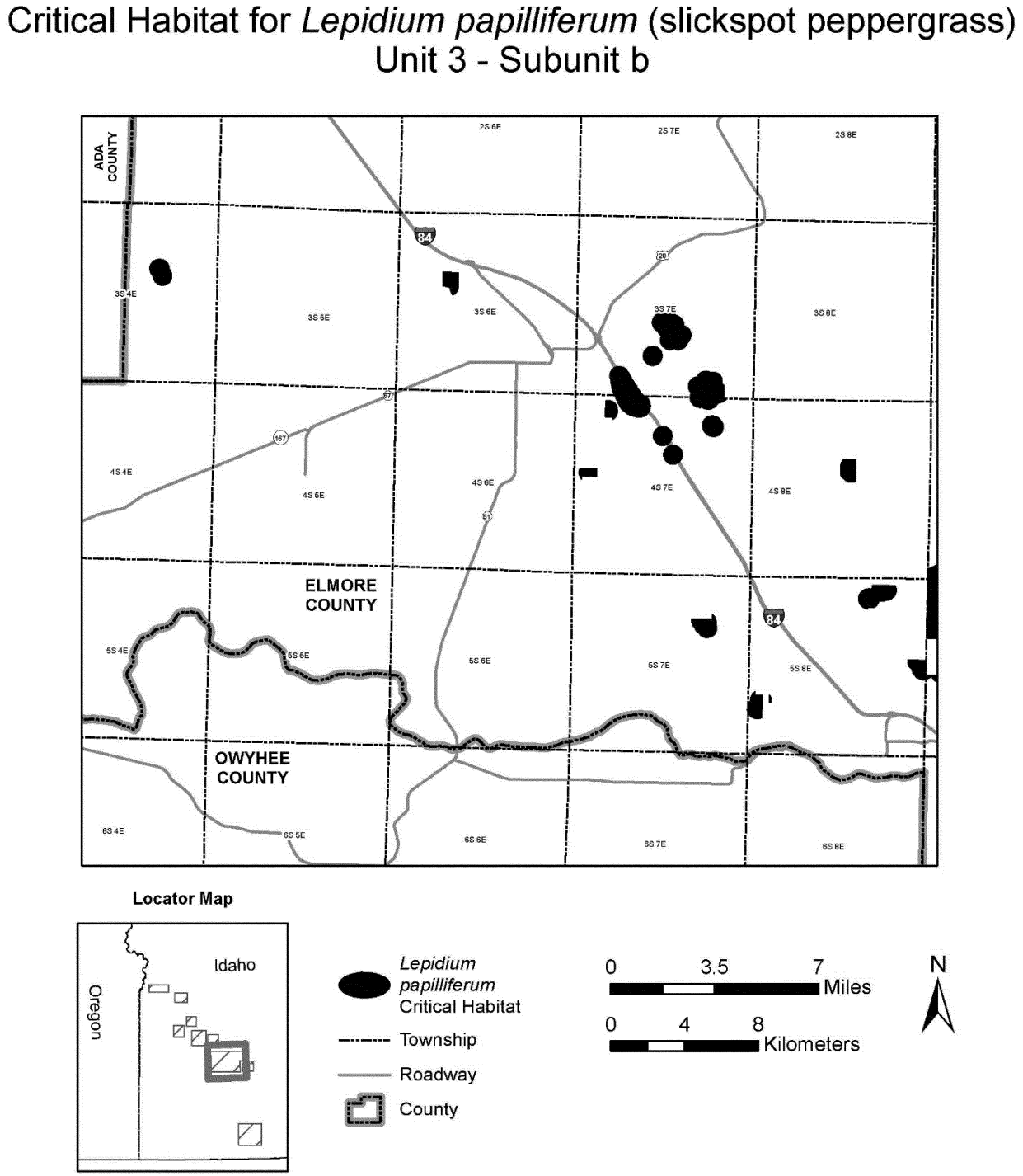
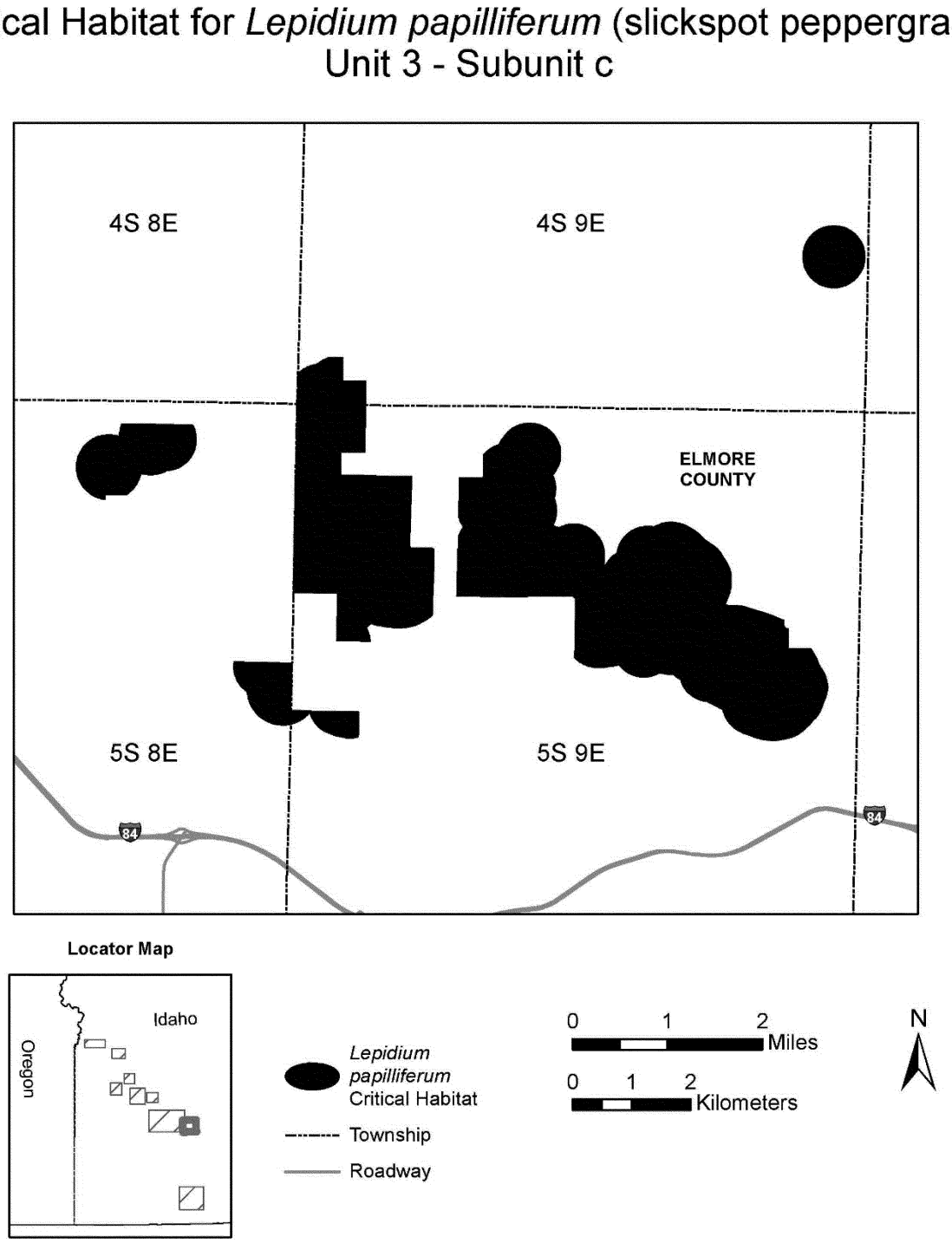


Figure 9 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (8)(vi)

(v) *Subunit 3c General Description:* Subunit 3c contains 2,485 ha (6,142 ac) of critical habitat in Elmore County, Idaho consisting of consisting of BLM land (2,453 ha (6,062 ac)) and BOR land (32 ha (80 ac)).

(vi) Map of Unit 3, Subunit 3c follows:



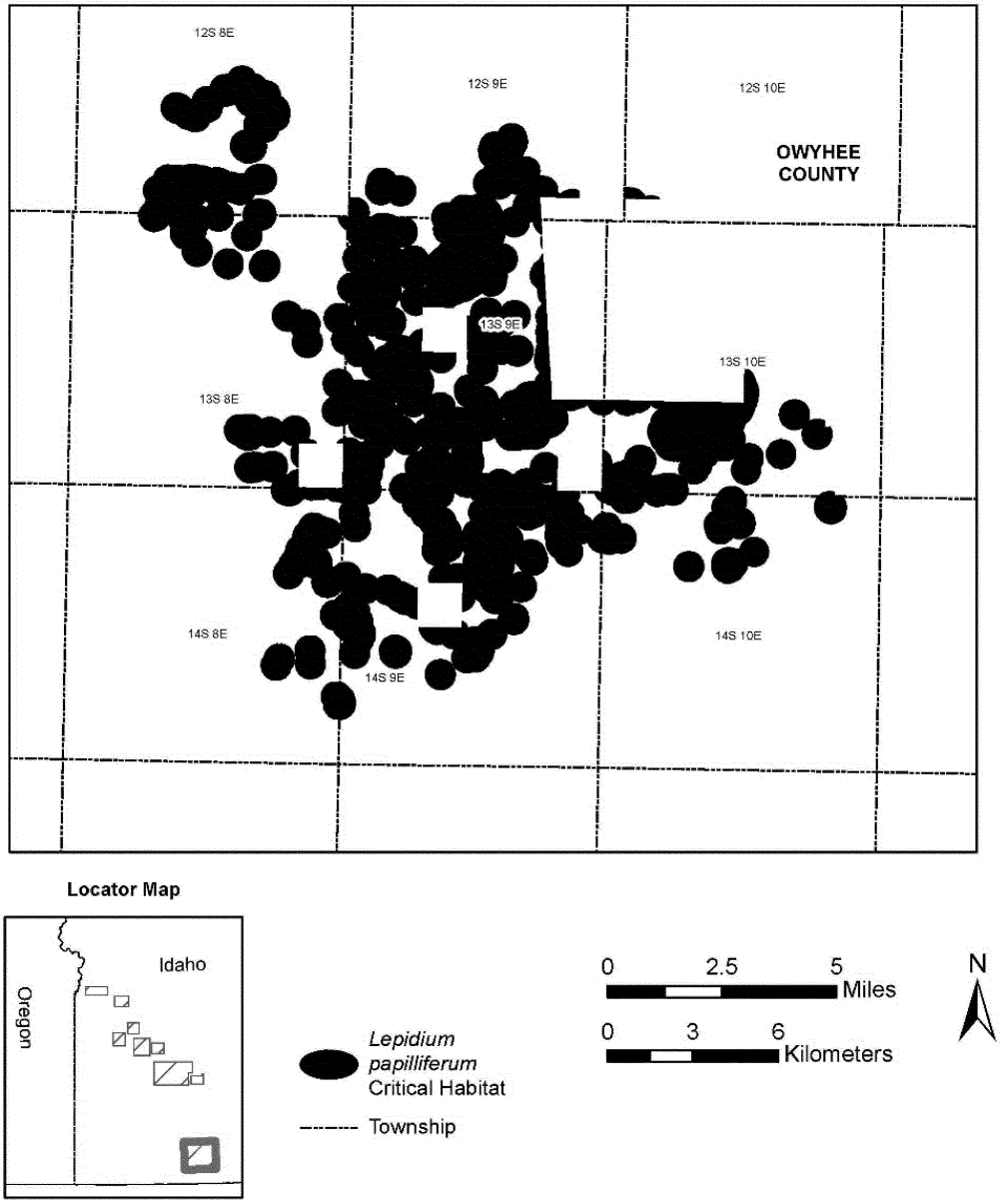
(9) *Unit 4:* Owyhee County, Idaho.

(i) *General description:* Unit 4 contains 16,310 ha (40,303 ac) of critical habitat in Owyhee County, Idaho, within the BLM Jarbidge Field Office area.

(ii) Map of Unit 4 follows:

Figure 10 to *Lepidium papilliferum* (slickspot peppergrass) paragraph (9)(ii)

Critical Habitat for *Lepidium papilliferum* (slickspot peppergrass)
Unit 4



* * * * *

Martha Williams,

Director, U.S. Fish and Wildlife Service.

[FR Doc. 2023–09219 Filed 5–3–23; 8:45 am]

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FEDERAL REGISTER

Vol. 88 Thursday,

No. 86 May 4, 2023

Part V

Environmental Protection Agency

40 CFR Parts 52, 78, and 97

Revision and Promulgation of Air Quality Implementation Plans; Texas; Regional Haze Federal Implementation Plan; Disapproval and Need for Error Correction; Denial of Reconsideration of Provisions Governing Alternative to Source-Specific Best Available Retrofit Technology (BART) Determinations; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52, 78, and 97

[EPA–R06–OAR–2016–0611; EPA–HQ–OAR–2016–0598; FRL–9771–01–R6]

Revision and Promulgation of Air Quality Implementation Plans; Texas; Regional Haze Federal Implementation Plan; Disapproval and Need for Error Correction; Denial of Reconsideration of Provisions Governing Alternative to Source-Specific Best Available Retrofit Technology (BART) Determinations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or Act), the Environmental Protection Agency (EPA) is proposing to withdraw the existing Texas Sulfur Dioxide (SO_2) Trading Program provisions, which constitute the Federal implementation plan (FIP) the EPA previously promulgated to address SO_2 Best Available Retrofit Technology (BART) requirements for EGUs in Texas that are not adequately satisfied by the Texas Regional Haze State implementation plan (SIP). In its place, the EPA proposes a FIP that establishes SO_2 limits on 12 Electric Generating Units (EGUs) located at six Texas facilities to fulfill requirements of the Regional Haze Rule for the installation and operation of BART for SO_2. Based on these proposed changes, we also propose to affirm the continued validity of participation in the Cross-State Air Pollution Rule (CSAPR) trading programs as a BART alternative. Therefore, the EPA is proposing to deny a petition for reconsideration of our 2017 determination that States that are participating in CSAPR can continue to rely on CSAPR participation as a BART alternative. Finally, we are proposing to find that our prior approval of the portion of the Texas Regional Haze SIP that addresses the BART requirement for EGUs for Particulate Matter (PM) was made in error and are proposing to correct that error by proposing to disapprove that portion of the Texas Regional Haze SIP through our authority under the CAA section 110(k)(6), and, as part of a FIP, we are proposing PM BART limits for 12 EGUs located at six Texas facilities.

DATES:

Comments: Comments must be received on or before July 3, 2023.

Virtual Public Hearing: The EPA will hold a virtual public hearing to solicit comments on May 19, 2023. The last day to pre-register to speak at the hearing will be on May 17, 2023. On May 18, 2023, the EPA will post a general agenda for the hearing that will list pre-registered speakers in approximate order at *https://www.epa.gov/tx/texas-regional-haze-best-available-retrofit-technology-federal-implementation-plan-and-cross.* If you require the services of a translator or a special accommodation such as audio description/closed captioning, please pre-register for the hearing and describe your needs by May 11, 2023.

For more information on the virtual public hearing, *see* **SUPPLEMENTARY INFORMATION.**

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R06–OAR–2016–0611 to the Federal eRulemaking Portal: *https://www.regulations.gov/* (our preferred method). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

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.

Docket: The docket for this action is available electronically at *https://www.regulations.gov.* Some information in the docket may not be publicly available via the online docket due to docket file size restrictions, such as certain modeling files, or content (*e.g.,* CBI). To request a copy of the modeling files, please send a request via email to *R6TXBARTandCSAPRPetition@epa.gov.* For questions about a document in the docket please contact individual listed in the **FOR FURTHER INFORMATION CONTACT** section.

CBI: Do not submit information containing CBI to the EPA through *https://www.regulations.gov.* To submit information claimed as CBI, please contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section. Clearly mark the part or all of the information that you claim to be 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 *Instructions* earlier. 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. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www2.epa.gov/dockets/commenting-epa-dockets.*

To pre-register to attend or speak at the virtual public hearing, please use the online registration form available at *https://www.epa.gov/tx/texas-regional-haze-best-available-retrofit-technology-federal-implementation-plan-and-cross* or contact us via email at *R6BARTandCSAPRPetition@epa.gov.* For more information on the virtual public hearing, see **SUPPLEMENTARY INFORMATION.**

FOR FURTHER INFORMATION CONTACT: Michael Feldman, Air and Radiation Division, SO_2 and Regional Haze Section (ARSH), Environmental Protection Agency, 1201 Elm St., Suite 500 Dallas, TX 75270; telephone number: 214–665–9793; or via email: *R6BARTandCSAPRPetition@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document wherever ''we,'' ''us,'' or ''our'' is used, we mean the EPA.

There are two dockets supporting this action, EPA–R06–OAR–2016–0611 and EPA–HQ–OAR- EPA–HQ–OAR–2016–0598. Docket No. EPA–R06–OAR–2016–0611 contains information specific to BART requirements for Texas, including this notice of proposed rulemaking and prior rulemakings related to Texas BART, previous submittals from the State, and the Technical Support Documents for this action. Docket No. EPA–HQ–OAR–2016–0598 contains previous actions and information related to CSAPR as a BART alternative. All comments regarding this proposed action should be made in Docket No. EPA–R06–OAR–2016–0611. For additional submission methods, please email *TXBARTandCSAPRPetition@epa.gov.*

Virtual Public Hearing

The EPA is holding a virtual public hearing to provide interested parties the opportunity to present data, views, or arguments concerning the proposal. The EPA will hold a virtual public hearing to solicit comments on May 19, 2023. The hearing will convene in two sessions. Session 1 will convene at 1 p.m. Central Time (CT) and will conclude at 3 p.m. CT, or 15 minutes after the last pre-registered presenter in attendance has presented if there are no additional presenters. Session 2 will convene at 4 p.m. Central Time (CT) and will conclude at 7 p.m. CT, or 15 minutes after the last pre-registered presenter in attendance has presented if

there are no additional presenters. The EPA will announce further details, including information on how to register for the virtual public hearing, on the virtual public hearing website at *https://www.epa.gov/tx/texas-regional-haze-best-available-retrofit-technology-federal-implementation-plan-and-cross.* The EPA will begin pre-registering speakers and attendees for the hearing upon publication of this document in the **Federal Register**. To pre-register to attend or speak at the virtual public hearing, please use the online registration form available at *https://www.epa.gov/tx/texas-regional-haze-best-available-retrofit-technology-federal-implementation-plan-and-cross* or contact us via email at *R6BARTandCSAPRPetition@epa.gov.* The last day to pre-register to speak at the hearing will be on May 17, 2023. On May 18, 2023, the EPA will post a general agenda for the hearing that will list pre-registered speakers in approximate order at *https://www.epa.gov/tx/texas-regional-haze-best-available-retrofit-technology-federal-implementation-plan-and-cross.* Additionally, requests to speak will be taken on the day of the hearing as time allows.

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 hearing to run either ahead of schedule or behind schedule. Each commenter will have approximately 3 to 5 minutes to provide oral testimony. The EPA encourages commenters to provide the EPA with a copy of their oral testimony electronically by including it in the registration form or emailing it to *R6BARTandCSAPRPetition@epa.gov.* 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 comments and supporting information presented at the virtual public hearing. A transcript of the virtual public hearing, as well as copies of oral presentations submitted to the EPA, will be included in the docket for this action.

The EPA is asking all hearing attendees to pre-register, even those who do not intend to speak. The EPA will send information on how to join the public hearing to pre-registered attendees and speakers.

Please note that any updates made to any aspect of the hearing will be posted online at *https://www.epa.gov/tx/texas-regional-haze-best-available-retrofit-technology-federal-implementation-plan-and-cross.* While the EPA expects the hearing to go forward as set forth above, please monitor our website or contact us via email at *R6BARTandCSAPRPetition@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 a translator or a special accommodation such as audio description/closed captioning, please pre-register for the hearing and describe your needs by May 11, 2023. The EPA may not be able to arrange accommodations without advance notice.

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I. Executive Summary

The CAA's visibility protection program was created in response to a national goal set by Congress in 1977 to remedy and prevent visibility impairment in certain national parks, such as Grand Canyon National Park, and national wilderness areas, such as the Okefenokee National Wildlife Refuge. Vistas in these areas are often obscured by visibility impairment such as regional haze, which is caused by emissions from numerous sources located over a wide geographic area.

In response to this Congressional directive, the EPA promulgated regulations to address visibility impairment in 1999. These regulations, which are commonly referred to as the Regional Haze Rule, established an iterative process for achieving Congress's national goal by providing for multiple, approximately 10-year ''planning periods'' in which State air agencies must submit to EPA plans that address sources of visibility-impairing pollution in their States. The first State plans were due in 2007 for the planning period that ended in 2018. The second State plans were due in 2021 for the period that ends in 2028. This proposal focuses on obligations from the first planning period of the regional haze program.

A central element of these first planning period State plans was the requirement for certain older stationary sources to install the Best Available Retrofit Technology (BART) for the purpose of making reasonable progress towards Congress's national goal of eliminating visibility impairment within our nation's most treasured lands. The Regional Haze Rule provided two approaches a State could take to fulfill its BART obligations: (1) conduct source-by-source evaluations for covered sources, or (2) implement an alternative program, such as an emissions trading program, that achieves greater reasonable progress than source-by-source BART.

One such BART alternative that 19 States have relied on for over a decade to fulfill some or all of their BART obligations with respect to visibility-impairing pollution from power plants is participation in the EPA's Cross-State Air Pollution Rule (CSAPR), an emissions trading program that was promulgated in 2011. Changes to the CSAPR program over the years, particularly with respect to the status of the State of Texas, have required the EPA to reexamine on several occasions whether the program continues to achieve greater reasonable progress than source-by-source BART for participating States. Most recently, after removing Texas from certain aspects of the CSAPR program, the EPA reaffirmed the viability of the CSAPR program as a BART alternative in 2017 and then again in 2020 when the EPA denied a petition for reconsideration of the 2017 reaffirmation.

Texas submitted its first State plan to address regional haze in 2009, relying at that time on the now-defunct predecessor program to CSAPR to satisfy the BART requirement for its power plants.[1] The EPA disapproved this portion of Texas's plan in 2012. Texas is home to numerous power plants, many of which operate without modern pollution controls. As a result, several of these plants are among the highest emitters of visibility-impairing pollutants, such as sulfur dioxide (SO_2), in the nation. These emissions cause or contribute to visibility impairment in such iconic places as Big Bend National Park and Guadalupe Mountains National Park in Texas, Salt Creek Wilderness Area in New Mexico, Caney Creek Wilderness Area in Arkansas, and Wichita Mountains Wilderness Area in Oklahoma. In 2017, the EPA proposed to address the gap in Texas's plan by, among other things, requiring source-by-source BART controls for SO_2 emissions from covered sources that would have significantly reduced these emissions. The EPA never finalized this proposal, however. Instead, in 2017 (and again in 2020), the EPA promulgated an intrastate trading program to govern SO_2 emissions from Texas power plants, based on a finding that the program would achieve greater reasonable progress than source-by-source BART even though the program would allow for increases in SO_2 emissions (and thus increased visibility impairment) instead of emission reductions.

This proposal seeks to address both the BART requirements for Texas's power plants and an outstanding petition that once again calls into question the continued viability of the CSAPAR program as a BART alternative for participating States due to the status of Texas, and the complicated interactions between these two regulatory regimes. Specifically, the EPA is proposing to withdraw the intrastate trading program on the basis that it does not achieve greater reasonable progress than source-by-source BART. In its place, the EPA is proposing to promulgate source-by-source BART emission limits for covered sources in Texas. If finalized, these emission limits would reduce emissions from these sources by more than 80,000 tons of SO_2 emissions, improving visibility across a wide range of the nation's most scenic vistas. In addition, the EPA is proposing that these changes to the Texas plan, if finalized, would allow the EPA to once again reaffirm that the CSAPR program remains a viable BART alternative for the 19 participating States. On that basis, the EPA is proposing to deny the outstanding petition seeking to end these States' longstanding reliance on the CSAPR program to satisfy their BART obligations for power plants.

II. Background

A. Regional Haze

Regional haze is visibility impairment that is produced by a multitude of sources and activities which are located across a broad geographic area. These sources and activities emit fine particulate matter ($PM_{2.5}$) (*e.g.,* sulfates, nitrates, organic carbon, elemental carbon, and soil dust) and its precursors (*e.g.,* sulfur dioxide (SO_2), nitrogen oxides (NO_X), and, in some cases, ammonia (NH_3) and volatile organic compounds (VOCs)). Fine particle precursors react in the atmosphere to form $PM_{2.5,}$ which, in addition to direct sources of $PM_{2.5,}$ impairs visibility by scattering and absorbing light. Visibility impairment (*i.e.,* light scattering) reduces the clarity, color, and visible distance that one can see. $PM_{2.5}$ can also cause serious health effects (including premature death, heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms) and mortality in humans, and contributes to environmental effects such as acid deposition and eutrophication.

In section 169A of the 1977 Amendments to the Clean Air Act (CAA), Congress created a program for protecting visibility in the nation's national parks and wilderness areas. This section of the CAA establishes as a national goal the prevention of any future, and the remedying of any existing, anthropogenic impairment of visibility in 156 national parks and wilderness areas designated as mandatory Class I areas.[2] Congress added section 169B to the CAA in 1990 to address regional haze issues, and the EPA promulgated the Regional Haze Rule (RHR), codified at 40 CFR 51.308,[3] on July 1, 1999.[4] The RHR established a requirement to submit a regional haze SIP, which applies to all 50 States, the District of Columbia, and the Virgin Islands.[5]

To address regional haze visibility impairment, the RHR established an iterative planning process that requires States in which Class I areas are located and States from which emissions may reasonably be anticipated to cause or contribute to any impairment of visibility in a Class I area to periodically submit SIP revisions to address regional haze visibility impairment.[6] Under the CAA, each SIP submission must contain ''a long-term (ten to fifteen years) strategy for making reasonable progress toward meeting the national goal,'' and the initial round of SIP submissions also had to address the statutory requirement

[1] *https://www.tceq.texas.gov/airquality/sip/bart/haze_sip.html.*

[2] Areas designated as mandatory Class I areas consist of National Parks exceeding 6,000 acres, wilderness areas and national memorial parks exceeding 5,000 acres, and all international parks that were in existence on August 7, 1977. 42 U.S.C. 7472(a). In accordance with section 169A of the CAA, the EPA, in consultation with the Department of Interior, promulgated a list of 156 areas where visibility is identified as an important value. 44 FR 69122 (November 30, 1979). The extent of a mandatory Class I area includes subsequent changes in boundaries, such as park expansions. 42 U.S.C. 7472(a). Although States and Tribes may designate as Class I additional areas which they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to ''mandatory Class I Federal areas.'' Each mandatory Class I Federal area is the responsibility of a ''Federal Land Manager.'' 42 U.S.C. 7602(i). When we use the term ''Class I area'' in this action, we mean a ''mandatory Class I Federal area.''

[3] In addition to the generally applicable regional haze provisions at 40 CFR 51.308, the EPA also promulgated regulations specific to addressing regional haze visibility impairment in Class I areas on the Colorado Plateau at 40 CFR 51.309. The latter regulations are not relevant here.

[4] *See* 64 FR 35714 (July 1, 1999). On January 10, 2017, the EPA promulgated revisions to the RHR that apply for the second and subsequent implementation periods. *See* 82 FR 3078 (Jan. 10, 2017).

[5] 40 CFR 51.300(b).

[6] *See* 42 U.S.C. 7491(b)(2); 40 CFR 51.308(b) and (f); see also 64 FR 35768 (July 1, 1999). The EPA established in the RHR that all States either have Class I areas within their borders or ''contain sources whose emissions are reasonably anticipated to contribute to regional haze in a Class I area;'' therefore, all States must submit regional haze SIPs. *See* 64 FR 35721. In addition to each of the 50 States, the EPA also concluded that the Virgin Islands and District of Columbia contain a Class I area and/or contain sources whose emissions are reasonably anticipated to contribute regional haze in a Class I area. *See* 40 CFR 51.300(b) and (d)(3).

that certain older, larger sources of visibility-impairing pollutants install and operate the Best Available Retrofit Technology (BART), as discussed further in Section II.B.[7] States' first regional haze SIPs were due by December 17, 2007, with subsequent SIP submissions containing revised long-term strategies originally due July 31, 2018, and every ten years thereafter.[8]

B. BART

Section 169A of the CAA directs States to evaluate the use of retrofit controls at certain larger, older stationary sources to address visibility impacts from these sources, whose emissions are often uncontrolled or poorly controlled. Specifically, section 169A(b)(2) of the CAA requires States to revise their SIPs to contain such measures as may be necessary to make reasonable progress towards the national visibility goal, including a requirement that certain categories of existing major stationary sources built between 1962 and 1977 procure, install, and operate BART as determined by the State applying five statutory factors. On July 6, 2005, the EPA published the *Guidelines for BART Determinations Under the Regional Haze Rule* at Appendix Y to 40 CFR part 51 (BART Guidelines) to assist States in the BART evaluation process. Under the RHR and the BART Guidelines, the BART evaluation process consists of three steps: (1) An identification of all BART-eligible sources in the State, (2) an assessment of whether the BART-eligible sources are subject to BART (based on a determination that each source or sources may reasonably be anticipated to cause or contribute to any visibility impairment in a Class I area), and (3) a determination of an emission limit reflecting BART after applying the five statutory BART factors.[9] In applying the BART factors for a fossil fuel-fired electric generating plant with a total generating capacity in excess of 750 megawatts, a State must use the approach set forth in the BART Guidelines.[10] A State is generally encouraged, but not required, to follow the BART Guidelines for other types of sources.[11]

States must make source-specific BART determinations for all ''BART-eligible'' sources determined to be subject to BART. However, as an alternative to making these ''source-specific'' BART determinations, States may adopt an emissions trading program or other alternative program for all or a portion of their BART-eligible sources, so long as the alternative achieves greater reasonable progress towards improving visibility than BART would for those sources, and the alternative meets certain other requirements. Several options are available for making BART-alternative demonstrations, and these are discussed in greater detail in Section IV.B and Section V.[12]

States generally undertook the BART determination process during the regional haze program's first implementation period. While the BART requirement is considered a one-time requirement, BART-eligible sources, including sources found subject to BART and for which a BART emission limit was established, may need to be re-assessed for additional controls in future implementation periods under the CAA's reasonable progress provisions. Thus, the EPA has stated that States should treat BART-eligible sources the same as other reasonable progress sources going forward.[13]

C. Previous Actions Related to Texas BART and ''CSAPR Better-Than-BART''

The procedural history leading up to this proposed action is set forth in detail in this section. On March 31, 2009, Texas submitted a regional haze SIP (the 2009 Regional Haze SIP) to the EPA that included reliance on Texas's participation in trading programs under the Clean Air Interstate Rule (CAIR) as an alternative to BART for SO_2 and NO_X emissions from Electric Generating Units (EGUs).[14] This reliance was consistent with the EPA's regulations at the time that Texas developed its 2009 Regional Haze SIP.[15] However, at the time Texas submitted its SIP to the EPA, the D.C. Circuit had remanded CAIR (without vacatur).[16] The court left CAIR and our CAIR FIPs in place in order to ''temporarily preserve the environmental values covered by CAIR'' until we could, by rulemaking, replace CAIR consistent with the court's opinion. The EPA promulgated the Cross-State Air Pollution Rule (CSAPR) to replace CAIR in 2011[17] (and revised it in 2012).[18] CSAPR established FIP requirements for sources in a number of States, including Texas, to address the States' interstate transport obligation under CAA section 110(a)(2)(D)(i)(I). CSAPR addresses interstate transport of $PM_{2.5}$ and ozone by requiring affected EGUs in these States to participate in one or more of the CSAPR trading programs, which establish emissions budgets that apply to the EGUs' collective annual emissions of SO_2 and NO_X, as well as emissions of NO_X during ozone season.[19]

Following the issuance of CSAPR, the EPA determined that CSAPR would achieve greater reasonable progress towards improving visibility than would source-specific BART in CSAPR States (a determination often referred to as ''CSAPR Better-than-BART'').[20] In the EPA's 2012 action promulgating CSAPR-Better-than-BART, the EPA used air quality modeling to show that CSAPR met the two-pronged numerical test for a BART alternative under 40 CFR 51.308(e)(3).[21] In the same action, we revised the Regional Haze Rule to allow States whose sources participate in the CSAPR trading programs to rely on such participation in lieu of requiring BART-eligible EGUs in the State to meet source-specific emission limits reflective of BART controls as to the relevant pollutant. In addition to allowing States to rely on CSAPR to address BART requirements, the EPA issued limited disapprovals of a number of States' regional haze SIPs, including the 2009 Regional Haze SIP submittal from Texas, due to the States' reliance on CAIR, which had been replaced by CSAPR.[22] The EPA did not immediately promulgate a FIP to address those aspects of the 2009 Regional Haze SIP submittal from Texas subject to the

[7] *See* 42 U.S.C. 7491(b)(2)(A); 40 CFR 51.308(d) and (e).

[8] *See* 40 CFR 51.308(b). The 2017 RHR revisions changed the second period SIP due date from July 31, 2018, to July 31, 2021, and maintained the existing schedules for the subsequent implementation periods. *See* 40 CFR 51.308(f).

[9] *See generally* 40 CFR 51.308(e)(1); 40 CFR part 51, Appendix Y.

[10] 42 U.S.C. 7491(b); 40 CFR 51.308(e)(1)(ii)(B).

[11] *See* 40 CFR part 51, Appendix Y. For additional details regarding the three steps of the BART evaluation process, *see, e.g.,* 85 FR 47134, 47136–37 (August 4, 2020).

[12] *See generally* 40 CFR 51.308(e)(2)–(4).

[13] *See* 81 FR 26942, 26947 (May 4, 2016).

[14] CAIR required certain States, including Texas, to reduce emissions of SO_2 and NO_X that contribute significantly to downwind nonattainment of the 1997 NAAQS for fine particulate matter and ozone. *See* 70 FR 25152 (May 12, 2005).

[15] *See* 70 FR 39104 (July 6, 2005).

[16] *See North Carolina* v. *EPA,* 531 F.3d 896 (D.C. Cir. 2008), *as modified,* 550 F.3d 1176 (D.C. Cir. 2008).

[17] Federal Implementation Plans; Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (Aug. 8, 2011).

[18] CSAPR was amended three times in 2011 and 2012 to add five States to the seasonal NO_X program and to increase certain State budgets. 76 FR 80760 (December 27, 2011); 77 FR 10324 (February 21, 2012); 77 FR 34830 (June 12, 2012).

[19] Ozone season for CSAPR purposes is May 1 through September 30.

[20] 77 FR 33642 (June 7, 2012). This determination was upheld by the D.C. Circuit. *See Util. Air Regulatory Grp.* v. *EPA,* 885 F.3d 714 (D.C. Cir. 2018).

[21] *See generally* 77 FR 33642 (June 7, 2012).

[22] *Id.*

limited disapproval in order to allow more time for the EPA to assess the remaining elements of the SIP.

In December 2014, we proposed an action to address the remaining regional haze obligations for Texas.[23] In that action, we proposed, among other things, to rely on our CSAPR FIP requiring Texas sources' participation in the CSAPR trading programs to satisfy the NO_X and SO_2 BART requirements for Texas's BART-eligible EGUs consistent with the 2012 revisions to the Regional Haze Rule. We also proposed to approve the portions of the 2009 Texas Regional Haze SIP addressing PM BART requirements for the State's BART-eligible EGUs. Before that proposed rule was finalized, however, the D.C. Circuit issued a decision on a number of challenges to CSAPR, denying most claims, but remanding the CSAPR SO_2 and/or seasonal NO_X emissions budgets of several States to the EPA for reconsideration, including the Phase 2 SO_2 and seasonal NO_X budgets for Texas.[24] Due to the uncertainty arising from the remand of Texas's CSAPR budgets, we did not finalize our December 2014 proposal to rely on CSAPR to satisfy the SO_2 and NO_X BART requirements for Texas EGUs.[25] Additionally, because our proposed action on the PM BART provisions for EGUs was dependent on how SO_2 and NO_X BART were satisfied, we did not take final action on the PM BART elements of the 2009 Texas Regional Haze SIP.[26]

On October 26, 2016, the EPA finalized an update to CSAPR to address the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to the 2008 ozone NAAQS (CSAPR Update).[27] The EPA also responded to the D.C. Circuit's remand in *EME Homer City II* of certain CSAPR seasonal NO_X budgets in that action.[28] As to Texas, the EPA withdrew Texas's seasonal NO_X budget finalized in CSAPR to address the 1997 ozone NAAQS. However, in that same action, the EPA promulgated a FIP with a revised seasonal NO_X budget for Texas to address the 2008 ozone NAAQS.[29] Accordingly, Texas sources remain subject to CSAPR seasonal NO_X requirements.

On November 10, 2016, in response to the D.C. Circuit's remand in *EME Homer II* of Texas's CSAPR SO_2 budget, we proposed to withdraw the FIP provisions that required EGUs in Texas to participate in the CSAPR trading programs for annual emissions of SO_2 and NO_X.[30] The EPA indicated that if the withdrawal was finalized, Texas would no longer be eligible under 40 CFR 51.308(e)(4) to rely on participation of its EGUs in a CSAPR trading program as an alternative to source-specific SO_2 BART determinations.[31] We also proposed to reaffirm the EPA's 2012 analytical demonstration that CSAPR provides greater reasonable progress than BART despite the changes in CSAPR's geographic scope to address the *EME Homer City II* remand, including removal of Texas's EGUs from the CSAPR trading program for SO_2 emissions.[32] On September 29, 2017, we finalized the withdrawal of the FIP provisions for annual emissions of SO_2 and NO_X for EGUs in Texas [33] and affirmed our proposed finding that the EPA's 2012 analytical demonstration remains valid and that participation in the CSAPR trading programs as amended continues to meet the Regional Haze Rule's criteria for an alternative to BART.[34] (We refer to this as the ''2017 Affirmation of CSAPR Better-than-BART'' throughout this notice.) In the September 29, 2017, final rule we evaluated the potential emissions shifting that could occur due to the withdrawal of Texas from the CSAPR trading program for SO_2 emissions. Based on this evaluation, we determined that an increase in emissions in the remaining CSAPR States participating in the SO_2 trading program would be more than offset by the favorable visibility impacts brought about by the reduced emissions in Texas under presumptive source-specific SO_2 BART for the State's BART-eligible EGUs.[35] As discussed later in this section, certain environmental organizations filed a petition for reconsideration of this affirmation in November 2017.

On January 4, 2017, we proposed a FIP to address the BART requirements for Texas's BART-eligible EGUs. With respect to NO_X, we proposed to replace the 2009 Regional Haze SIP's reliance on CAIR with reliance on our CSAPR FIP to address the NO_X BART requirements for EGUs.[36] This portion of our proposal was based on the CSAPR Update and our separate November 10, 2016, proposed finding that the EPA's actions in response to the D.C. Circuit's remand would not adversely impact our 2012 demonstration that participation in the CSAPR trading programs meets the Regional Haze Rule's criteria for alternatives to BART.[37] We noted that we could not finalize this portion of our proposed FIP to address the NO_X BART requirements for EGUs unless and until we finalized our proposed finding that CSAPR was still better than BART.[38] (This predicate finding was finalized on September 29, 2017.)

The January 4, 2017, proposed action addressing the SO_2 BART requirements for Texas EGUs acknowledged that Texas sources would no longer be participating in the CSAPR program for SO_2, and therefore, the remaining unfulfilled BART requirements for Texas's BART-eligible EGUs would need to be fulfilled by either an approved SIP or an EPA-issued FIP. The EPA proposed to satisfy these requirements through a BART FIP,

[23] 79 FR 74818 (Dec. 16, 2014).

[24] *EME Homer City Generation, L.P.* v. *EPA (EME Homer City II),* 795 F.3d 118, 132 (D.C. Cir. 2015). In 2012, several State, industry, and other petitioners challenged CSAPR in the D.C. Circuit, which stayed and then vacated the rule, ruling on only a subset of petitioners' claims. *See EME Homer City Generation, L.P.* v. *EPA,* 696 F.3d 7 (D.C. Cir. 2012). However, in April 2014 the Supreme Court reversed the vacatur and remanded to the D.C. Circuit for resolution of petitioners' remaining claims. *See EPA* v. *EME Homer City Generation, L.P.,* 572 U.S. 489 (2014). Following the Supreme Court remand, the D.C. Circuit conducted further proceedings to address petitioners' remaining claims. In July 2015, the court issued a decision denying most of the claims but remanding the Phase 2 SO_2 emissions budgets for Alabama, Georgia, South Carolina, and Texas and the Phase 2 ozone-season NO_X budgets for eleven States to the EPA for reconsideration.

[25] 81 FR 296 (Jan. 5, 2016).

[26] In January 2016, we finalized action on the remaining aspects of the December 2014 proposal. This final action disapproved, among other things Texas's reasonable progress analysis and Texas's long-term strategy. The EPA promulgated a FIP establishing a new long-term strategy that consisted of SO_2 emission limits for 15 coal-fired EGUs at eight power plants. 81 FR 296, 302 (Jan. 5, 2016). That rulemaking was judicially challenged, however, and in July 2016, the Fifth Circuit granted the petitioners' motion to stay the rule pending review. *Texas* v. *EPA,* 829 F.3d 405 (5th Cir. 2016). On March 22, 2017, following the submittal of a request by the EPA for a voluntary remand of the parts of the rule under challenge, the Fifth Circuit Court of Appeals remanded the rule in its entirety. (In this rulemaking, we are not addressing those remanded requirements.) March 22, 2017, Order, *Texas* v. *EPA,* 829 F.3d 405 (5th Cir. 2016) (No. 16–60118).

[27] 81 FR 74504 (Oct. 26, 2016).

[28] *See generally EME Homer City II,* 795 F.3d 118, (D.C. Cir. 2015).

[29] 81 FR 74504, 74524–25.

[30] 81 FR 78954 (Nov. 10, 2016).

[31] *Id.* at 78956. The EPA also noted that because Texas EGUs would continue to participate in a CSAPR trading program for ozone-season NO_X emissions, Texas would still be eligible under 40 CFR 51.308(e)(4) to rely on CSAPR participation as an alternative to source-specific NO_X BART determinations for the covered sources. 81 FR at 78962.

[32] *Id.*

[33] Texas continues to participate in CSAPR for ozone season NO_X. See final action signed September 21, 2017, available at *regulations.gov* in Docket No. EPA–HQ–OAR–2016–0598.

[34] 82 FR 45481 (September 29, 2017).

[35] *Id.* at 45493–94.

[36] 82 FR 912, 914–15 (Jan. 4, 2017).

[37] 81 FR 74504 (Nov. 10, 2016).

[38] 82 FR 912, 915 (Jan. 4, 2017).

which addressed the identification of BART-eligible EGU sources, screening to identify which BART-eligible sources are ''subject-to-BART'' (*i.e.,* may reasonably be anticipated to cause or contribute to any impairment of visibility in any Class I area), and source-by-source determinations of SO_2 BART controls as appropriate. We proposed SO_2 emission limits on 29 EGUs located at 14 facilities.

In the January 2017 proposal, we also proposed to disapprove the portion of the 2009 Texas Regional Haze SIP that made BART determinations for PM from EGUs, on the grounds that the demonstration in the 2009 Texas Regional Haze SIP relied on underlying assumptions as to how the SO_2 and NO_X BART requirements for EGUs were being met that were no longer valid with the proposed source-specific SO_2 requirements.[39] The 2009 Texas Regional Haze SIP included a pollutant-specific screening analysis for PM to demonstrate that Texas EGUs were not subject to BART for PM. In a 2006 guidance document,[40] the EPA stated that pollutant-specific screening can be appropriate where a State is relying on a BART alternative to address both NO_X and SO_2 BART. While we previously proposed to approve the EGU BART determinations for PM in the 2009 Texas Regional Haze SIP back in 2014, at that time, CSAPR was an appropriate alternative for SO_2 and NO_X BART requirements for EGUs. With the proposal to promulgate source-specific SO_2 BART requirements, however, SO_2 BART would no longer be addressed by a BART alternative. Thus, pollutant-specific screening for PM was no longer appropriate. To address PM BART requirements, we proposed to promulgate source-specific PM BART requirements, which generally were based on existing practices and control capabilities for those EGUs that we proposed to find subject to BART. For coal-fired units, we proposed PM BART limits consistent with PM emission limits in the Mercury and Air Toxics Standards (MATS) rule; for gas-fired units, we proposed PM BART would be satisfied by making the burning of pipeline-quality gas federally enforceable; and for oil-fired units, we proposed that fuel-content requirements for SO_2 BART would also satisfy PM BART.[41]

The EPA received public comments on this 2017 proposal encouraging the agency to consider other potentially viable methods of implementing a BART alternative for SO_2 in Texas, rather than finalizing source-specific BART limits. Specifically, some commenters suggested to the EPA the concept of a trading program as a BART alternative to satisfy SO_2 BART requirements. After considering these and other public comments, rather than finalizing source-specific BART limits for subject-to-BART EGUs in Texas, we issued a final action on October 17, 2017, that addressed SO_2 BART requirements for all BART-eligible coal-fired units and a number of BART-eligible gas- or gas/fuel oil-fired units through a BART alternative for SO_2—specifically, a new intrastate trading program (Texas SO_2 Trading Program). The remaining BART-eligible EGUs not covered by the Texas SO_2 Trading Program were determined to be not subject to BART based on screening methods as described in our January 2017 proposed rule and the associated BART Screening technical support document (BART Screening TSD) for that action.[42]

At the time, the EPA modeled the Texas SO_2 Trading Program after the CSAPR SO_2 trading program. We determined that the Texas SO_2 Trading Program would achieve similar emission reductions to CSAPR had the State continued to be subject to the CSAPR trading program through a FIP or SIP. As such, we concluded that the Texas program satisfied the clear-weight-of-evidence test requirements for a BART alternative under 40 CFR 51.308(e)(2).[43] As finalized in October 2017, the Texas SO_2 Trading Program established an annual trading program budget of 238,393 tons allocated to the covered units, as well as a Supplemental Allowance Pool budget of 10,000 tons, for a total of up to 248,393 allowances potentially available in each year on average.[44] The Texas SO_2 Trading Program allowed ''banking'' of allowances for use in future years, similar to the CSAPR trading programs, but unlike the CSAPR programs, did not impose an ''assurance level'' above which annual emissions would be penalized via a higher allowance-surrender ratio. The Texas SO_2 Trading Program did not include all EGUs that would have been subject to CSAPR, but the EPA concluded that potential annual emissions from the excluded units were relatively small (*i.e.,* less than 27,500 tons) and would not undermine its overall conclusion that the Texas SO_2 Trading Program was essentially equivalent in design and stringency to the CSAPR program.[45] In reaching that conclusion, the EPA compared the annual average emission limit of 248,393 tons under the Texas SO_2 Trading Program (combined with estimated emissions for the non-covered EGUs) to a benchmark figure of 317,100 tons of annual SO_2 emissions evaluated for EGUs in Texas in the 2012 CSAPR Better-Than-BART analysis.[46]

In our final action on October 17, 2017, we also finalized our January 2017 proposed determination that Texas's participation in CSAPR's trading program for ozone-season NO_X qualifies as an alternative to source-specific NO_X BART. Because Texas continues to participate in CSAPR's trading program for ozone-season NO_X, we are not reopening this determination in this action. Finally, because both NO_X and SO_2 were now once again addressed by a BART alternative, we approved Texas's 2009 Regional Haze SIP's determination, based on a pollutant-specific screening analysis, that Texas's EGUs are not subject to BART for PM.

On November 28, 2017, Sierra Club and the National Parks Conservation Association (NPCA) submitted a petition for partial reconsideration of our September 2017 finding affirming that CSAPR continues to satisfy requirements as a BART alternative.[47]

[39] In the 2009 Regional Haze Texas SIP, emissions of both SO_2 and NO_X from Texas's BART-eligible EGUs were covered by participation in trading programs, which allowed Texas to conduct a screening analysis of the visibility impacts from PM emissions from such units in isolation. However, modeling on a pollutant specific basis for PM is appropriate only in the narrow circumstance of reliance on BART alternatives to satisfy both NO_X and SO_2 BART. Due to the complexity and nonlinear nature of atmospheric chemistry and chemical transformation among pollutants, the EPA has not recommended performing modeling on a pollutant-specific basis to determine whether a source is subject to BART, except in the unique situation described above. *See* discussion in Memorandum from Joseph Paisie to Kay Prince, ''Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations,'' July 19, 2006.

[40] *See* discussion in Memorandum from Joseph Paisie to Kay Prince, ''Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations,'' July 19, 2006.

[41] 82 FR at 936.

[42] *See* document in *regulations.gov* at docket identification number EPA–R06–OAR–2016–0611–0005.

[43] 82 FR 48324, 48329–30, 48357 (Oct. 17, 2017). The EPA initially determined that the Texas SO_2 Trading Program achieved greater reasonable progress than source-specific BART under the clear-weight-of-evidence test in 40 CFR 51.308(e)(2), relying on the EPA's national finding that CSAPR provides for greater reasonable progress than BART and the fact that the Texas SO_2 Trading Program would achieve similar emission reductions to CSAPR in Texas. *See* 82 FR at 48329–30.

[44] *Id.* at 48358.

[45] *Id.*

[46] *Id.* at 48359–60.

[47] Sierra Club and National Parks Conservation Association, Petition for Partial Reconsideration of *Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan*

Continued

Among other things, the petitioners alleged that it was impracticable, and indeed impossible, to comment on the relationship between the Texas SO_2 Trading Program and the CSAPR Better-than-BART analysis in the final rule because the EPA did not finalize the Texas SO_2 Trading Program until after the final rule was signed and the EPA had assumed presumptive source-specific SO_2 BART controls in the rulemaking record for the final rule.[48] Petitioners alleged, in particular, that the EPA's emissions shifting analysis accounted for potential increases in emissions in remaining CSAPR States of between 22,300 to 53,000 tons by assuming these emissions would be offset by an estimated 127,300 tons of SO_2 emission reductions in Texas due to presumptive source-specific BART controls.[49] However, these petitioners alleged that this assumption was proven false when the EPA promulgated the Texas SO_2 Trading Program rather than source-specific BART.[50] On this basis, among other things, petitioners sought mandatory reconsideration of the September 29, 2017 action under CAA section 307(d)(7)(B).

On December 15, 2017, the EPA received a separate petition from Sierra Club, NPCA, and the Environmental Defense Fund (EDF) requesting reconsideration of certain aspects of the October 2017 final rule focused mainly on issues related to the Texas SO_2 Trading Program promulgated to address the SO_2 BART requirement for Texas EGUs.[51] In response to the December 15, 2017, petition for reconsideration and in light of the change in direction between the EPA's proposed and final actions for SO_2 BART in Texas, we stated that we believed that certain aspects of the October 2017 final rule could benefit from further public comment. Accordingly, on August 27, 2018, the EPA proposed to affirm in most respects the October 2017 final rule, including the Texas SO_2 Trading Program, but solicited public comment on certain issues including whether the Texas SO_2 Trading Program for certain EGUs in Texas met the requirements for an alternative to BART for SO_2 and our approval of Texas's SIP determination that no sources are subject to BART for PM.[52]

On November 14, 2019, partly in response to comments received on its 2018 proposed affirmation, the EPA issued a supplemental proposal to amend certain parts of the Texas SO_2 Trading Program.[53] The supplemental proposal included additional measures such as an assurance level and penalty provisions. Specifically, these provisions imposed a penalty surrender ratio of three-to-one on SO_2 emissions exceeding a specified ''assurance level.'' [54] The notice also proposed a variability limit set at 7 percent of the trading program budget (or 16,668 tons) and a resulting assurance level of 107 percent of the trading program budget (or 255,081 tons [55]) based on the CSAPR methodology establishing such amounts for CSAPR States but applied to Texas-specific data.[56] The supplemental proposal also included other minor changes with the goal of strengthening the overall stringency of the program.[57]

On June 29, 2020, in two separate but concurrent actions, former EPA Administrator Andrew Wheeler signed a final rule affirming, with the proposed modifications from the supplemental proposal described above, the Texas SO_2 Trading Program as an alternative to BART for SO_2 for certain sources in Texas and signed a letter denying the petition for reconsideration of the 2017 affirmation of CSAPR Better-than-BART.[58] Along with the denial of the petition, the EPA also published in the docket the ''Cross-State Air Pollution Rule (CSAPR) Better Than Best Available Retrofit Technology (BART) Petition for Reconsideration Sensitivity Calculations'' [59] to demonstrate that, even accounting for the reduced stringency of the Texas SO_2 Trading Program as compared to source-specific BART in Texas, and assuming a concomitant shift in SO_2 emissions to remaining CSAPR States in the southeastern United States, CSAPR remained a valid BART alternative.

On August 28, 2020, the Sierra Club, NPCA, and Earthjustice submitted a petition for partial reconsideration under CAA section 307(d)(7)(B) of the EPA's 2020 Denial of their November 2017 petition for reconsideration (August 2020 petition).[60] The petitioners alleged that because the EPA presented the updated CSAPR Better-than-BART sensitivity calculations for the first time in its 2020 denial of the 2017 Petition (and thus they were not afforded an opportunity to comment), and because that updated analysis is of central relevance to the September 2017 Final Rule, the EPA must reconsider both actions under CAA section 307(d)(7)(B).[61] The petitioners alleged that, contrary to the EPA's conclusions in its 2020 Denial, the updated CSAPR Better-than-BART analysis demonstrates that visibility improvement under CSAPR is *not* equal to or greater than visibility improvement under source-specific BART averaged over all 140 Class I areas, or the 60 eastern Class I areas covered by CSAPR.[62] The August 2020 petition will be discussed in further detail in Section V.

On October 13, 2020, we received a separate petition for partial reconsideration from NPCA, Sierra Club, and Earthjustice, on our 2020 final rule affirming that the Texas SO_2 Trading Program is a valid alternative to SO_2 BART requirements for Texas EGUs.[63] In the petition, Petitioner's allege that the EPA presented a corrected sensitivity analysis for the first time on July 6, 2020, the day the EPA published notice of its denial of the 2017 administrative petition for reconsideration of the CSAPR Better-than-BART affirmation and after the EPA signed the final rule affirming the Texas Regional Haze BART FIP.

Requirements for Texas; Final Rule; 82 FR 45481 (Sept. 29, 2017); EPA–HQ–OAR–2016–0598; FRL–9968–46–OAR (submitted Nov. 28, 2017).

[48] *Id.* at 8–9.

[49] *Id.* at 13–14.

[50] *Id.*

[51] Sierra Club, National Parks Conservation Association, and Environmental Defense Fund Petition for Reconsideration of *Promulgation of Air Quality Implementation Plans; State of Texas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan* (Oct. 17, 2017) EPA–R06–OAR–2016–0611; FRL–9969–07–Region 6 (submitted Dec. 15, 2017).

[52] 83 FR 43586, 43587.

[53] 84 FR 61850 (Nov. 14, 2019).

[54] *Id.* at 61853.

[55] In the final rule signed on June 29, 2020, we adjusted the assurance level to 255,083 tons rather than the 255,081-ton assurance level we proposed in the November 2019 supplemental proposal. 85 FR 49170, 49183 (Aug. 12, 2020).

[56] The increment between a State's emissions budget and its corresponding assurance level is referred to as a ''variability limit,'' because the increment is designed to account for year-to-year variability in electricity generation and associated emissions.

[57] 84 FR at 61855–56.

[58] *See* 85 FR 49170 (Aug. 12, 2020) (affirming the Texas SO_2 Trading Program as an alternative to BART for certain EGU sources in Texas). 85 FR 40286 (July 6, 2020) (providing notice that the agency responded to a petition for partial reconsideration of the 2017 affirmation of CSAPR better than BART).

[59] Docket document ID EPA–HQ–OAR–2016–0598–0034 available at *https://www.regulations.gov/docket/EPA-HQ-OAR-2016-0598.*

[60] Petition for Partial Reconsideration of Denial of Petition for Reconsideration and Petition for Reconsideration of the Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas (Aug. 28, 2020), Docket document ID EPA–HQ–OAR–2016–0598–0041, available in *www.regulations.gov.*

[61] 2020 Pet. at 8.

[62] 2020 Pet. at 9.

[63] Sierra Club, National Parks Conservation Association, and Earthjustice Petition for Partial Reconsideration of *Promulgation of Air Quality Implementation Plans; State of Texas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan* EPA–R06–OAR–2016–0611 (dated Oct. 13, 2020).

Specifically, the Petitioners alleged that the corrected sensitivity analysis is the ''primary evidence'' for the EPA's conclusion that the Texas SO_2 Trading Program is a lawful and valid BART alternative for SO_2 under the Regional Haze Rule, and that contrary to the EPA's assertions, the ''corrected'' analysis reveals that the Texas SO_2 Trading Program does not achieve greater reasonable progress than source-specific BART, and therefore, is arbitrary and contrary to the Clean Air Act and Regional Haze Rule. Moreover, Petitioners contended that the corrected sensitivity analysis demonstrates that visibility improvement under CSAPR, including the Texas SO_2 Trading Program, is *not* equal to or greater than visibility improvement under source-specific BART averaged over all 140 Class I areas or the 60 eastern Class I areas generally within the States covered under CSAPR. Because the EPA disclosed the updated analysis for the first time on July 6, 2020, the Petitioners argued that the grounds for the objections raised in this petition arose after the period for public comment, which ended on January 13, 2020, for the EPA's supplemental notice of proposed rulemaking (84 FR 61,850 (Nov. 14, 2019)). Thus, Petitioners alleged the petition met the requirements for mandatory reconsideration under CAA section 307(d)(7)(B).

By letter dated June 22, 2021, the EPA acknowledged receipt of the petition for partial reconsideration and, without conceding that the conditions for mandatory reconsideration were necessarily met pursuant to CAA section 307(d)(7)(B), the agency recognized that aspects of this action warrant careful review, and potential modification, to ensure our actions are fully consistent with the requirements of the Clean Air Act and the Regional Haze Rule.[64] The letter stated the EPA's intent to reconsider certain aspects of the Texas Regional Haze BART action, which we are proposing in this action.

D. Consultation With Federal Land Managers (FLMs)

The Regional Haze Rule requires that a State, or the EPA if promulgating a FIP, consult with FLMs before adopting and submitting a required SIP or SIP revision or a required FIP or FIP revision. Under 40 CFR 51.308(i)(2), a State, or the EPA if promulgating a FIP, must provide an opportunity for consultation no less than 60 days prior to holding any public hearing or other public comment opportunity on a SIP or SIP revision, or FIP or FIP revision, for regional haze. The EPA must include a description of how it addressed comments provided by the FLMs when considering a FIP or FIP revision. We consulted with the FLMs (specifically, U.S. Fish and Wildlife Service, U.S. Forest Service, and the National Park Service) on December 6, 2022. During the consultation we provided an overview of our proposed actions. The FLMs signaled support for our proposed action.[65]

III. Overview of Proposed Action

In this notice of proposed rulemaking, the EPA proposes an action with several interrelated components. As more fully explained in the following sections, on reconsideration, and due to concerns that our justification for the Texas SO_2 Trading Program rested on an erroneous interpretation of our BART alternative regulations, we are proposing to withdraw the Texas SO_2 Trading Program and instead propose source-specific BART limits for certain EGUs in Texas. We are proposing to satisfy the Regional Haze Rule's SO_2 BART requirements through conducting a source-specific BART analysis for certain BART-eligible EGU sources identified in this action. Additionally, based on our assessment of the effect of this proposed action with regard to Texas BART (if finalized), we are proposing to re-affirm our 2017 analytical demonstration that CSAPR remains a valid BART alternative. Thus, in this action we propose to deny the 2020 petition for partial reconsideration of our 2020 denial of a petition for reconsideration of that 2017 determination. Finally, we are proposing to make an error correction under CAA section 110(k)(6) with respect to our prior approval of the portion of the 2009 Texas Regional Haze SIP that found that Texas's EGUs are not subject to BART for PM on the grounds that our approval relied on underlying assumptions as to how the SO_2 and NO_X BART requirements for EGUs were being met that are no longer valid with the proposed withdrawal of the Texas SO_2 Trading Program. As such, we propose to correct the error by disapproving Texas's 2009 Regional Haze SIP submission related to PM BART and propose to satisfy PM BART by also conducting a source-specific BART analysis for certain BART-eligible EGU sources identified in this action. Unless expressly reopened in this notice, the EPA is not reopening any other prior determinations related to regional haze requirements in the State of Texas.

IV. Withdrawal of the Texas SO_2 Trading Program as a BART Alternative for SO_2

As previously stated, on August 12, 2020, the EPA published a final rule affirming our 2017 final rule that the Texas SO_2 Trading Program, with amendments, satisfied the requirements for a BART alternative for SO_2 under 40 CFR 51.308(e)(2).[66] In this action, we are proposing to find that the basis for the Texas SO_2 Trading Program as a BART alternative rested on an erroneous interpretation of our BART alternative regulations. That interpretation in turn produced an analytical basis for the BART alternative that we now propose to find insufficient and in error. We are proposing to withdraw the Texas SO_2 Trading Program under CAA section 110(k)(6) and our inherent authority to reconsider prior actions.

A. Legal Authority To Withdraw the Texas SO_2 Trading Program

1. The EPA's Error Correction Authority Under CAA 110(k)(6)

The EPA proposes to correct its Texas Regional Haze BART FIP by proposing to withdraw the Texas SO_2 Trading Program and proposing to instead conduct a source-specific BART analysis for the BART-eligible EGUs included in the Texas SO_2 Trading Program. In this action, we are proposing to find that the Texas SO_2 Trading Program was promulgated on an erroneous basis, constituting an error under CAA section 110(k)(6).

Section 110(k)(6) of the CAA provides the EPA with the authority to make corrections to actions on CAA implementation plans that are subsequently found to be in error. *Ass'n of Irritated Residents* v. *EPA,* 790 F.3d 934, 948 (9th Cir. 2015) (110(k)(6) is a ''broad provision'' enacted to provide the EPA with an avenue to correct errors). The key provisions of section 110(k)(6) are that the Administrator has the authority to ''determine'' that the promulgation of a plan was ''in error,'' and when the Administrator does so, may then revise the action ''as

[64] Letter from Joseph Goffman, Acting Assistant Administrator Office of Air and Radiation, Re: Sierra Club and National Parks Conservation Association, Petition for Partial Reconsideration of Promulgation of Air Quality Implementation Plans; State of Texas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan EPA–R06–OAR–2016–0611 (June 22, 2021) available in Docket ID No. EPA–R06–OAR–2016–0611 or at *https://www.epa.gov/system/files/documents/2021-07/tx-rh-bart-fip-response-signed_1.pdf.*

[65] *See* ''Texas Regional Haze FLM Consultation 12–6–2022.xls'' in the docket for this action.

[66] *See generally* 85 FR 49170.

appropriate,'' in the same manner as the prior action.[67] Moreover, CAA section 110(k)(6) ''confers discretion on the EPA to decide if and when it will invoke the statute to revise a prior action.'' 790 F.3d at 948 (section 110(k)(6) grants the ''EPA the discretion to decide when to act pursuant to that provision'').

While CAA section 110(k)(6) provides the EPA with the authority to correct its own ''error,'' nowhere does this provision or any other provision in the CAA define what qualifies as ''error.'' Thus, the EPA believes that the term should be given its plain language, everyday meaning, which includes all unintentional, incorrect, or wrong actions or mistakes.[68] Under CAA section 110(k)(6), the EPA must make an error determination and provide the ''the basis thereof.'' There is no indication that this is a substantial burden for the Agency to meet. To the contrary, the requirement is met if the EPA clearly articulates the error and basis thereof. *Ass'n of Irritated Residents* v. *EPA,* 790 F.3d at 948; *see also* 85 FR 73636, 73638.

2. The EPA's Inherent Authority To Reconsider Its Prior Action

In addition to the error correction provision of CAA section 110(k)(6), the EPA also has the inherent administrative authority to withdraw the Texas SO_2 Trading Program and propose in its place to conduct a source-specific BART analysis for the BART-eligible EGUs included in the Texas SO_2 Trading Program. This authority lies in CAA section 301(a), read in conjunction with CAA section 110 and case law holding that an agency has inherent authority to reconsider its prior actions.[69] Section 301(a) authorizes the EPA ''to prescribe such regulations as are necessary to carry out the [EPA's] functions'' under the CAA. Reconsidering prior rulemakings, when necessary, is part of the ''[EPA's] functions'' under the CAA—considering the EPA's inherent authority as recognized under the case law to do so—and as a result, CAA section 301(a) confers authority upon the EPA to undertake this rulemaking. Moreover, CAA section 110(c)(1) provides the EPA with the authority to promulgate a FIP where ''the Administrator . . . disapproves a State implementation plan submission in whole or in part.'' As such, the EPA's authority to promulgate FIPs under the CAA necessarily provides it the inherent authority to amend/withdraw FIPs.[70]

Additionally, it is well-established that the EPA has discretion to revisit existing regulations. Specifically, agencies have inherent authority to reconsider past decisions and to revise, replace, or repeal a decision to the extent permitted by law and supported by a reasoned explanation. *FCC* v. *Fox Television Stations, Inc.,* 556 U.S. 502, 515 (2009) (''*Fox*''); *Motor Vehicle Manufacturers Ass'n of the United States, Inc.* v. *State Farm Mutual Automobile Insurance Co.,* 463 U.S. 29, 42 (1983) (''*State Farm*''); *see also Encino Motorcars, LLC* v. *Navarro,* 579 U.S. 211, 221–22 (2016).

As such, we find that our inherent ability to reconsider past actions also provides us the authority to withdraw the Texas SO_2 Trading Program for the same reasons as under CAA section 110(k)(6), as described in Section IV.B. That is, because the Texas SO_2 Trading Program rested on what we find to be an improper interpretation of our BART alternative regulations, we are proposing to withdraw the program and to conduct a source-specific BART analysis for those EGUs currently participating in the program.

The EPA acknowledges the potential for reliance interests to be affected by our reconsideration of a prior rule. However, the EPA is not aware of any substantial commitment of resources or capital, or that the EGUs covered by the Texas SO_2 Trading Program undertook any significant decisions in reliance on participation in the trading program. The Texas SO_2 Trading Program established an emissions budget that the covered sources were already operating well below. Therefore, the requirements of the Texas SO_2 Trading Program did not cause any sources to invest in new pollution control technology or to undertake any other significant investments. Further, because the Texas SO_2 Trading Program rested on an improper interpretation of our BART alternative regulations, we do not think a reliance interest alone (even if there were such interests) would be sufficient to overcome the need to return to a proper interpretation of our BART regulations and proper implementation of the BART program.

B. Basis for Withdrawing the Texas SO_2 Trading Program

We propose that, in attempting to demonstrate that the Texas SO_2 Trading Program satisfied the BART alternative requirements in 40 CFR 51.308(e)(2), the EPA erroneously relied on its previous determination that the CSAPR trading program is better-than-BART nationwide, when in fact the Texas SO_2 Trading Program was a separate BART alternative program that was not a part of the CSAPR program.[71] Because the Texas SO_2 Trading Program was and is separate and distinct from CSAPR and functioned as an independent BART alternative disconnected from any other BART alternative, we propose that in conducting the comparative analysis required by 51.308(e)(2)(i), the EPA should have compared the visibility benefits of the Texas SO_2 Trading Program in isolation with the visibility benefits of source-specific BART controls for the particular subject-to-BART sources that would have been required in the absence of the BART alternative. We conducted no such comparison in either the 2017 rule originally promulgating the Texas SO_2 Trading Program, nor in the 2020 action affirming the Texas SO_2 Trading Program with certain, minor amendments. For purposes of determining whether it is appropriate to now withdraw the Texas SO_2 Trading Program as a BART alternative, we have conducted an analysis comparing the Texas SO_2 Trading Program to source-specific BART for the relevant EGU BART sources. We propose to find that source-specific BART controls substantially outperform the Texas SO_2 Trading Program in terms of emission reductions and visibility improvement at the Class I areas that are affected by the sources in Texas. As a result of this finding of error, we are proposing to withdraw the Texas SO_2 Trading Program as a BART alternative for SO_2 and propose in its place to conduct a source-specific BART analysis for those BART-eligible EGUs included in the Texas SO_2 Trading Program.

1. BART Alternative Requirements

The Regional Haze Rule's BART provisions generally direct States to identify all BART-eligible sources; determine which of those BART-eligible sources are subject to BART requirements based on whether the sources emit air pollutants that may reasonably be anticipated to cause or contribute to visibility impairment in a Class I area; determine source-specific BART for each source that is subject to BART requirements, based on an analysis taking specified factors into consideration; and include emission limitations reflecting those BART determinations in their SIPs. However, the Regional Haze Rule also provides

[67] *See* 85 FR 73636, 73637 (Nov. 19, 2020).

[68] *See* 85 FR at 73637–38.

[69] *Trujillo* v. *General Electric Co.,* 621 F.2d 1084, 1086 (10th Cir. 1980) (''Administrative agencies have an inherent authority to reconsider their own decisions, since the power to decide in the first instance carries with it the power to reconsider.'')

[70] *See* 76 FR 25177, 25181 (May 2011).

[71] *See* 82 FR 48324, 48330 (Oct. 17, 2017).

each State with the flexibility to adopt an allowance trading program or other alternative measure instead of requiring source-specific BART controls, so long as the alternative measure is demonstrated to achieve greater reasonable progress than BART toward the national goal of achieving natural visibility conditions in Class I areas.

States, or the EPA if promulgating a FIP, that opt to rely on an alternative program in lieu of source-specific BART, must meet the requirements under 40 CFR 51.308(e)(2) and, if applicable, (e)(3). These requirements for alternative programs establish the criteria for demonstrating that the alternative program will achieve greater reasonable progress than would be achieved through the installation and operation of BART (*i.e.,* they establish the ''better-than-BART'' tests) and are fundamental elements of any alternative program. To demonstrate that the alternative program achieves greater reasonable progress than source-specific BART, States, or the EPA if developing a FIP, must demonstrate that the alternative meets the requirements, as applicable, in 40 CFR 51.308(e)(2)(i) through (vi). Separately, under 40 CFR 51.308(e)(4), States whose sources participate in the CSAPR trading program(s) may rely on such programs to satisfy BART as to the relevant pollutants and sources without the need for any additional analysis (discussed in more detail in Section V).

Under 40 CFR 51.308(e)(2), the State, or the EPA, must conduct an analysis of the best system of continuous emission control technology available and the associated emission reductions achievable for each source subject to BART covered by the alternative program, termed a ''BART benchmark.'' [72] Where the alternative program has been designed to meet requirements other than BART, simplifying assumptions may be used to establish a BART benchmark.[73] The BART benchmark is the basis for comparison in the better-than-BART test for BART alternatives. Under 40 CFR 51.308(e)(2)(i)(E), the State or the EPA must provide a determination that the alternative program achieves greater reasonable progress than BART under 40 CFR 51.308(e)(3). 40 CFR 51.308(e)(3), in turn, provides two different avenues, applicable under specific circumstances, for determining whether the BART alternative achieves greater reasonable progress than BART. If the distribution of emissions under the alternative program is not substantially different than under BART, and the alternative program results in greater emissions reductions of each relevant pollutant than BART, then the alternative program may be deemed to achieve greater reasonable progress. On the other hand, if the distribution of emissions is significantly different, the differences in visibility improvement between BART and the alternative program must be determined by conducting dispersion modeling for each impacted Class I area for the best and worst 20 percent of days. This modeling demonstrates ''greater reasonable progress'' if both of the following criteria are met: (1) Visibility does not decline in any Class I area; and (2) there is overall improvement in visibility when comparing the average differences in visibility conditions between BART and the alternative program across all the affected Class I areas.[74]

Alternatively, pursuant to 40 CFR 51.308(e)(2)(i)(E), a third test is available under which States may show that the BART alternative achieves greater reasonable progress than BART ''based on the clear weight of evidence.'' As stated in the EPA's revisions to the Regional Haze Rule governing alternatives to source-specific BART determinations, such demonstrations attempt to make use of all available information and data which can inform a decision while recognizing the relative strengths and weaknesses of that information in arriving at the soundest decision possible.[75] Factors which can be used in a weight of evidence determination in this context may include, but are not limited to, future projected emissions levels under the program as compared to under BART, future projected visibility conditions under the two scenarios, the geographic distribution of sources likely to reduce or increase emissions under the program as compared to BART sources, monitoring data and emissions inventories, and sensitivity analyses of any models used. This array of information and other relevant data may be of sufficient quality to inform the comparison of visibility impacts between BART and the alternative program. In showing that an alternative program is better than BART and when there is confidence that the difference in visibility impacts between BART and the alternative scenarios are expected to be large enough, a weight of evidence comparison may be warranted in making the comparison.

Under 40 CFR 51.308(e)(2)(iii) and (iv), all emission reductions for the alternative program must take place during the period of the first long-term strategy (*i.e.,* the first planning period) for regional haze and all the emission reductions resulting from the alternative program must be surplus to those reductions resulting from measures adopted to meet requirements of the CAA as of the baseline date of the SIP.

2. The EPA Inappropriately Relied on CSAPR When Promulgating and Affirming the Texas SO_2 Trading Program in 2017 and 2020

The EPA has long maintained that the CSAPR trading programs can function as a BART alternative for the relevant covered visibility pollutants for the EGU BART sources that are covered by the relevant CSAPR trading program. The EPA promulgated CSAPR, a revised multistate trading program to replace CAIR, in 2011 (and revised it in 2012).[76] CSAPR established FIP requirements for several States, including Texas, to address the States' interstate transport obligation under CAA section 110(a)(2)(D)(i)(I). The EPA made the original CSAPR better-than-BART determination in a 2012 rulemaking, codified at 40 CFR 51.308(e)(4), and subsequently reaffirmed that determination in a 2017 rulemaking.[77] At the time of the 2012 rulemaking, Texas was part of the CSAPR annual NO_X and SO_2 trading programs to address interstate transport of $PM_{2.5}$. Therefore, Texas was among the States who could choose to meet BART obligations for their EGUs through participation in the relevant CSAPR trading program. The EPA subsequently withdrew Texas from CSAPR for purposes of addressing interstate transport requirements for the $PM_{2.5}$ NAAQS (*i.e.,* Texas was withdrawn from the annual NO_X and SO_2 trading programs) in response to the D.C. Circuit Court's decision in *EME Homer City Generation, L.P.* v. *EPA.*[78] However, when the EPA promulgated the Texas SO_2 Trading Program, the Agency reasoned that it could nonetheless

[72] 40 CFR 51.308(e)(2)(i)(C).

[73] 40 CFR 51.308(e)(2)(i)(C).

[74] 40 CFR 51.308(e)(3).

[75] 71 FR 60612, 60622 (Oct. 13, 2006).

[76] Federal Implementation Plans; Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (Aug. 8, 2011).

[77] 77 FR 33642 (June 7, 2012) (codified at 40 CFR 51.308(e)(4)). The final rule amended the Regional Haze Rule to allow States whose EGUs participate in one of the CSAPR trading programs for a given pollutant to rely on that participation as an alternative to source-specific BART requirements); *see also* 82 FR 45481 (Sep 29, 2017) (affirming that CSAPR remained better than BART nationwide after Texas and other States were removed from CSAPR for PM).

[78] *EME Homer City Generation, L.P.* v. *EPA,* 795 F. 3d 118, 138 (D.C. Cir. 2015).

satisfy the Regional Haze Rule's BART alternative requirements by demonstrating that SO_2 emissions under the Texas SO_2 Trading Program were comparable to SO_2 emissions anticipated from Texas had Texas remained in CSAPR.[79]

As we explained in our June 2020 affirmation of the Texas SO_2 Trading Program, annual SO_2 emissions for sources covered by the Texas SO_2 Trading Program are constrained by the annual budgets and an assurance level of 255,083 tons. The EPA then added to this amount an estimated 35,000 tons per year of emissions from units not covered by the Texas SO_2 Trading Program, but which would have been covered by the CSAPR program. This yielded 290,083 tons of SO_2, which was below the 317,100-tons per year emissions level assumed for Texas sources under CSAPR.[80] Thus, rather than considering the Texas SO_2 Trading Program in isolation as a BART alternative and comparing the effects of that program to the effects of source-specific BART for the relevant EGUs in Texas to determine whether it made ''greater reasonable progress,'' the EPA instead relied on the CSAPR Better-than-BART analysis as the basis for concluding that the Texas SO_2 Trading Program provided greater reasonable progress than BART—even though the Texas SO_2 Trading Program was not connected in any way to CSAPR and functioned as its own, independent BART alternative.

Such reliance is inconsistent with the requirements of the Regional Haze Rule's requirements for a BART alternative in 40 CFR 51.308(e)(2), which requires a comparison between the BART alternative and the BART benchmark for the relevant sources.[81] Because the Texas SO_2 Trading Program is an intrastate program, the effects of that program should have been considered independently of CSAPR. Indeed, participation in the CSAPR program in lieu of implementing BART requirements is provided for under a separate provision of the Regional Haze Rule, 40 CFR 51.308(e)(4). Thus, the EPA could only rely on the analytical demonstrations made in the CSAPR better-than-BART rulemakings had Texas remained in CSAPR.[82] Once Texas was withdrawn from CSAPR, the EPA could not rely on that provision as justification that the Texas SO_2 Trading Program made ''greater reasonable progress'' than BART at Texas EGUs. Thus, whether the Texas SO_2 Trading Program provided similar or more reductions than anticipated had Texas remained in CSAPR is irrelevant and fails to demonstrate that it achieves greater reasonable progress than BART as required by 40 CFR 51.308(e)(2).

Furthermore, although the Texas SO_2 Trading Program was modeled after CSAPR in its design and operation, the two programs are distinct. First, the sources covered under the Texas SO_2 Trading Program do not include all the sources in Texas that were part of the CSAPR trading program.[83] Thus, the EPA had to rely on an unenforceable emissions assumption of 35,000 tons per year from the non-covered sources to allow for an apples-to-apples comparison between the Texas program and the CSAPR program in terms of the universe of sources analyzed.[84] However, there was no obligation that the non-covered sources would emit below that assumed level in perpetuity.

Second, CSAPR was designed as a regional trading program that involved the participation of sources from many States over a wide geographic area, as compared to the Texas SO_2 Trading Program, which is an intrastate trading program. As such, the Texas SO_2 Trading Program is limited to sources in Texas which cannot trade allowances with sources in other States as is permitted under CSAPR. Because of the scope of participation in CSAPR, in demonstrating that CSAPR was Better-than-BART, the EPA was not required by the rule to demonstrate that CSAPR achieves greater reasonable progress than BART at every Class I area or in every State.[85] Rather, the EPA demonstrated that CSAPR achieved greater visibility improvement than BART when visibility was averaged across all Class I areas.[86] In averaging visibility improvement from CSAPR across all the affected Class I areas, the 2012 demonstration properly relied on the substantial emission reductions anticipated to occur in the eastern half of the country for which other States, which included Texas at the time, could take advantage of without having to apply source-specific BART.[87] For example, SO_2 emissions in Tennessee were anticipated to be approximately 321,300 in a nationwide BART scenario,[88] but only approximately 66,700 under CSAPR.[89] Similar situations were also anticipated in several other States including Ohio (546,700 tons of SO_2 under a nationwide BART scenario compared to only 190,000 tons under CSAPR); Indiana (454,500 tons of SO_2 under a nationwide BART scenario compared to only 202,900 tons under CSAPR); and Pennsylvania (222,600 tons of SO_2 under a BART scenario compared to only 134,500 tons under CSAPR).[90]

However, while CSAPR leads to greater emissions reductions overall over the modeled region, we explained that for certain CSAPR States, application of source-specific BART was projected to lead to greater emission reductions than through participation in CSAPR. We explained that this could occur in CSAPR States that have numerous BART-eligible EGUs.[91] One

[79] 82 FR 48324, 48336 (Oct. 17, 2017).

[80] Promulgation of Air Quality Implementation Plans; State of Texas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan 85 FR 49170, 49183 (Aug. 12, 2020).

[81] 40 CFR 51.308(e)(2).

[82] Even after the removal of Texas (and other States) from CSAPR following the remand of certain CSAPR budgets in *EME Homer City Generation,* Texas (and other States) had the option to voluntarily participate in CSAPR to gain the benefit of addressing BART obligations. Texas declined to adopt this approach.

[83] *See* 85 FR 49170, 49184.

[84] 85 FR 49170, 49184.

[85] *See* 77 FR at 33650.

[86] *See e.g.,* 77 FR at 33650.

[87] Specifically, in the 2017 affirmation that CSAPR remains better than BART after withdrawal of multiple States from CSAPR, including Texas, we stated that the 2012 analytic demonstration showed that the difference in emissions between the CSAPR scenario plus BART elsewhere would lead to an overall reduction in SO_2 emission reductions for the overall modeled region of 773,000 tons as compared to application of source specific BART nationwide. See memo entitled ''Sensitivity Analysis Accounting for Increases in Texas and Georgia Transport Rule State Emissions Budgets,'' Docket document ID No. EPA–HQ–OAR–2011–0729–0323 (May 29, 2012) (2012 CSAPR/BART sensitivity analysis memo), at 1–2, available in the docket for this proposed action.

[88] For all BART-eligible EGUs in the Nationwide BART scenario and for BART-eligible EGUs not subject to CSAPR for a particular pollutant in the CSAPR + BART-elsewhere scenario, the modeled emission rates were the presumptive EGU BART limits for SO_2 and NO_X as specified in the BART Guidelines (Appendix Y to 40 CFR part 51—Guidelines for BART Determinations under the Regional Haze Rule), unless an actual emission rate at a given unit with existing controls was lower, in which case the lower emission rate was modeled. (For additional details see Technical Support Document for Demonstration of the Transport Rule as a BART Alternative, Docket document ID No. EPA–HQ–OAR–2011–0729–0014 (December 2011) (2011 CSAPR/BART Technical Support Document EPA–HQ–OAR–2011–0729–0014) in *www.regulations.gov.*

[89] *See* Technical Support Document for Demonstration of the Transport Rule as a BART Alternative, Docket document ID No. EPA–HQ–OAR–2011–0729–0014 (December 2011) (2011 CSAPR/BART Technical Support Document EPA–HQ–OAR–2011–0729–0014), at table 2–4, also available in the docket for this action at document ID EPA–R06–OAR–2016–0611–0119.

[90] *See* Technical Support Document for Demonstration of the Transport Rule as a BART Alternative, Docket ID No. EPA–HQ–OAR–2011–0729–0014 (December 2011) (2011 CSAPR/BART Technical Support Document), at table 2–4, available in *www.regulations.gov,* document ID EPA–R06–OAR–2016–0611–0119.

[91] 81 FR 78954, 78962–63 (Nov. 10, 2016).

such State where this was anticipated to occur was Texas. In the case of Texas, the projected SO_2 emissions from affected EGUs in the modeled nationwide-BART scenario (139,300 tons per year) are considerably lower than the projected SO_2 emissions from the affected EGUs in the CSAPR scenario (266,600 tons per year as modeled, and up to approximately 317,100 tons, as addressed in the 2012 CSAPR/BART sensitivity analysis memo).[92] Thus, the application of presumptive source-specific BART, instead of participation in the CSAPR SO_2 trading program, would have resulted in projected emissions of 139,300 tons per year, a reduction in projected SO_2 emissions by between approximately 127,300 tons and 177,800 tons from the CSAPR SO_2 trading program emissions.[93] As a result, a demonstration that the Texas SO_2 Trading Program achieves equivalent emissions reductions as anticipated had Texas remained in CSAPR fails to demonstrate that the Texas SO_2 Trading Program achieves greater reasonable progress than BART for the BART sources in Texas participating in the Texas SO_2 Trading Program. The comparison in estimated emissions above strongly indicates this not to be the case.

Thus, we propose that it was an error to allow the Texas SO_2 Trading Program to rely on a demonstration made for a different and unconnected BART alternative (*i.e.,* CSAPR) because it failed to comport with the requirements in 40 CFR 51.308(e)(2). Instead, the EPA should have assessed whether the Texas SO_2 Trading Program provides for greater reasonable progress than BART for those BART sources in Texas covered by the Texas SO_2 Trading Program.[94]

3. The Texas SO_2 Trading Program Does Not Achieve Greater Reasonable Progress Than BART

Because the 2017 Texas BART FIP and subsequent affirmation improperly relied on CSAPR to support the validity of the Texas SO_2 Trading Program, there is no evidence in the record to support a finding that the Texas SO_2 Trading Program provides for greater reasonable progress than BART when compared to the proper BART benchmark (*i.e.,* source specific BART for the sources in Texas covered by the Texas SO_2 Trading Program). Rather, the relevant information indicates that had the Texas SO_2 Trading Program been compared to the appropriate Texas-specific BART benchmark, the analysis would have found that the Texas SO_2 Trading Program does not provide for greater reasonable progress than BART at the Class I areas affected by those sources.

For purposes of determining whether it is appropriate to now withdraw the Texas SO_2 Trading Program as a BART alternative, we have conducted an analysis comparing the effects of the Texas SO_2 Trading Program to source-specific BART for the relevant EGU BART sources. The purpose of this analysis is not to conduct a full re-evaluation of the Texas SO_2 Trading Program under each of the requirements of the BART-alternative regulations of 40 CFR 51.308(e)(2). Rather, this analysis evaluates the question of whether, even under conservative assumptions, the Texas SO_2 Trading Program, when compared to the proper BART benchmark (source-specific BART for the relevant sources in Texas), could possibly achieve greater reasonable progress. The analysis confirms a stark disparity in outcomes, with the Texas SO_2 Trading Program not securing any additional emission reductions and even allowing for substantial SO_2 emissions *increases* from baseline levels while source-specific BART would achieve substantial SO_2 emissions decreases. We propose to find that the installation and operation of source-specific BART controls substantially outperform the Texas SO_2 Trading Program in terms of emission reductions and resulting visibility improvement at the Class I areas that are affected by the sources in Texas, and that the Texas SO_2 Trading Program does not achieves greater reasonable progress than BART as required by 40 CFR 51.308(e)(2).

As we explained earlier in Section II and in our June 2020 affirmation of the Texas SO_2 Trading Program as an alternative to BART for SO_2, annual SO_2 emissions for sources covered by the Texas SO_2 Trading Program are constrained by the annual budgets and an assurance level of 255,083 tons.[95] The Texas SO_2 Trading Program imposes a penalty surrender ratio of three allowances for each ton of emissions in any year in excess of the assurance level, which provides a disincentive against emissions exceeding the assurance level. Added to this amount is an estimated 35,000 tons per year of emissions from units not covered by the Texas SO_2 Trading Program, but which would have been covered by the CSAPR program. This yields an estimated 290,083 tons of SO_2 from all Texas EGUs. This is significantly higher than the 139,300 tons per year estimated in the nationwide BART only scenario for Texas EGUs in the 2012 CSAPR better than BART demonstration. In other words, the presumptive BART scenario developed for the 2012 demonstration would result in approximately 150,000 tons per year less SO_2 emissions than the Texas SO_2 Trading Program scenario.

We note, however, that this comparison of emissions of the Texas SO_2 Trading Program and presumptive BART from the 2012 CSAPR analysis does not account for recent facility shutdowns. Sandow,[96] Big Brown,[97] and Monticello [98] retired in 2018. Welsh Unit 2 retired in 2016,[99] and the J. T. Deely units retired at the end of 2018.[100] While these retirements have resulted in overall emission reductions, they have also resulted in a surplus of allowances that serve to decrease or eliminate any

[92] 81 FR 78954, 78962–63 (Nov. 10, 2016).

[93] 81 FR 78954, 78962–63 (Nov. 10, 2016). As stated in both the proposal and final rule withdrawing Texas from CSAPR SO_2 trading program, the 127,300-ton amount was described as the minimum reduction in projected Texas SO_2 emissions because it did not reflect a 50,500-ton increase in the Texas SO_2 budget that occurred after the original CSAPR scenario was modeled. If that budget increase had been reflected in the original CSAPR scenario, modeled Texas EGU SO_2 emissions in that scenario would likely have been higher, potentially by the full 50,500-ton amount. The CSAPR budget increase would have had no effect on Texas EGUs' modeled SO_2 emissions under BART. Therefore, the 127,300-ton minimum estimate of the reduction in projected Texas SO_2 emissions caused by removing Texas EGUs from CSAPR for SO_2, which are computed as the difference between Texas EGUs' collective emissions in the original CSAPR scenario and the BART scenario, may be understated by as much as 50,500 tons. *See* 82 FR at 45492; 81 FR at 78962–63.

[94] *See* 40 CFR 51.308(e)(2), (e)(3).

[95] 85 FR 49170, 49183 (Aug. 12, 2020).

[96] *See* letter dated February 14, 2018, from Kim Mireles of Luminant to the TCEQ requesting to cancel certain air permits and registrations for Sandow Steam Electric Station available in the docket for this action at document ID EPA–R06–OAR–2016–0611–0143 for Sandow Unit 4 and document ID EPA–R06–OAR–2016–0611–0134 for Sandow Unit 5.

[97] *See* letter dated March 27, 2018, from Kim Mireles of Luminant to the TCEQ requesting to cancel certain air permits and registrations for Big Brown available in the docket for this action at document ID EPA–R06–OAR–2016–0611–0130.

[98] *See* letter dated February 8, 2018, from Kim Mireles of Luminant to the TCEQ requesting to cancel certain air permits and registrations for Monticello available in the docket for this action at document ID EPA–R06–OAR–2016–0611–0132.

[99] Welsh Unit 2 was retired on April 16, 2016, pursuant to a Consent Decree (No. 4:10–cv–04017–RGK) and subsequently removed from the Title V permit (permit no. O26). *See* ''TX197.183 Turk (Welsh) Consent Decree 12.22.11'' (document ID EPA–R06–OAR–2016–0611–0138) and ''TX187.129 AIR OP_O26–13404_Permits_Public_20160919_Project File Folder_1410429 (document ID EPA–R06–OAR–2016–0611–0129) in the docket for this action.

[100] *See* letters dated December 2021 from the TCEQ to Danielle Frerich regarding the cancellation of air quality permits for the J. T. Deely Units available in the docket for this action.

regulatory pressure from the Texas SO_2 Trading Program to further decrease emissions from current levels. Under the Texas SO_2 Trading Program, retired units continue to be allocated allowances for a period of five years.[101] After that period, those allowances are still allocated but to the supplemental allowance pool.[102] Sources participating in the Texas SO_2 Trading Program have flexibility to transfer allowances among multiple participating units under the same owner/operator when planning operations, and unused allowances can be banked for use in future years.[103] Furthermore, allowances are allocated from the supplemental allowance pool each year if the reported emissions for an ownership group exceeds the amount of allowances allocated to that group, with a limit on these allocations in any year of 16,688 tons plus any allowances added to the pool in that year from retired units. The combination of allocations to retired units, banking of allowances, and allocations from the supplemental allowance pool results in an excess availability in allowances to cover the sources' emissions with the only limitation being the assurance level.

Because the Texas SO_2 Trading Program contains both BART and non-BART EGUs, we must establish emission estimates for both types of units to compare the installation and operation of source-specific BART for SO_2 to the Texas SO_2 Trading Program. For the purposes of comparing the Texas SO_2 Trading Program to source-specific BART, we assume that all BART-eligible coal-fired sources are subject to BART [104] and that source-specific BART results in emission reductions greater than or equal to those reductions estimated based on a presumptive BART level of 0.15 lb/MMBtu.[105] [106] For the gas fired sources included in the Texas SO_2 Trading Program, we assume that they are not subject to BART for purposes of this analysis and thus treat them as non-BART sources.[107] We note that an assumption of 95 percent control would result in lower emissions than the 0.15 lb/MMBtu rate for all BART units, however, for the purpose of this comparison, we are selecting a conservative (high) estimate for presumptive BART limits to illustrate the large emission reductions available through the installation and operation of BART even at this conservatively high emission rate. We also note that the assumption of 0.15 lb/MMBtu is more conservative than what was used for these units in the 2012 CSAPR Better-than-BART analysis.

To estimate emissions for BART sources, we multiplied the average heat input from 2016–2020 by a presumptive BART emission rate of 0.15 lb/MMBtu.[108] To obtain a conservative estimate for non-BART units, we used the maximum annual emissions from the 2016–2020 period for each unit. The use of the maximum annual emissions from the 2016–2020 period for each non-BART unit provides a conservative assumption of emissions anticipated from these units to represent a scenario in which they are not participating in the Texas SO_2 Trading Program. We then added the estimated emissions from the BART units together with the estimated emissions from the non-BART units to compare emissions between the Texas SO_2 Trading Program and BART. Sources that have recently shutdown were not included in the analysis. In addition to comparing emission levels under source-specific BART to the assurance level of the Texas SO_2 Trading Program, we also consider the impact of source-specific BART on current emissions levels under the program.

Table 1 shows 2021 annual emissions in one column, and the other column shows estimated emissions under the presumptive BART assumptions plus the maximum annual emissions from the 2016–2020 period for those non-BART units as described in the paragraph above. The 2021 emissions are the most recent annual emissions available at the time of this action and represent emissions under the Texas SO_2 Trading Program regulations, including the amended provisions in the 2020 final action. Under these conservative assumptions, presumptive BART for those BART-eligible units plus the maximum annual emissions from the 2016–2020 period for those non-BART units still results in an approximately 32 percent reduction in total estimated emissions as compared to actual emissions for these same sources as provided for under the Texas SO_2 Trading Program. This is a significant reduction compared to actual emissions and far below the assurance level of 255,083 tons per year. Additionally, in looking at only subject-to-BART units, presumptive BART reduces emissions by more than 70,000 tons as compared to what those units are emitting under the Texas SO_2 Trading Program. The estimated emissions for the BART sources under presumptive BART of 24,108 tons is also far below the allowance allocations to these units of 96,487 tons of allowances per year. As detailed in Section VIII, our determinations of source-specific BART result in even larger emission reductions than what was calculated here under these presumptive BART assumptions.

[101] 40 CFR 97.911(a)(2).

[102] 40 CFR 97.911(a)(2).

[103] *See* 45 FR at 49208.

[104] This is consistent with our subject to BART screening analysis below in Section VII.

[105] BART Guidelines, 70 FR 39104, 39131 (July 6, 2005). ''. . ., we are establishing a BART presumptive emission limit for coal-fired EGUs greater than 200 MW in size without existing SO_2 control. These EGUs should achieve either 95 percent SO_2 removal, or an emission rate of 0.15 lb SO_2/MMBtu, unless a State determines that an alternative control level is justified based on a careful consideration of the statutory factors.''

[106] In Section VII of this proposed action, we evaluate and identify which of the BART-eligible EGUs currently in the Texas SO_2 Trading Program are subject to BART sources as well as the analysis of the five factors that inform the BART determination for subject to BART sources. In Section VIII, we provide our weighing of the factors and proposed determination on source-specific BART requirements for these sources.

[107] We note that in Section VII we determined that W. A. Parish Unit WAP4, which is gas fired, is subject to BART because it is co-located with two other coal-fired BART units (Units WAP5 & WAP6). Thus, in evaluating whether the BART-eligible units at W. A. Parish were subject to BART we evaluated emissions from Units WAP4 with WAP5 & WAP6, which is consistent with the subject to BART evaluation process as explained in Section VII. For Unit WAP4, we are not assuming any further reductions due to application of BART because of the inherently low levels of SO_2 from firing natural gas.

[108] The Fayette BART units (Units 1 and 2) are currently operating well below 0.15 lb/MMBtu. For these units, the maximum annual emissions from 2016–2020 were used in this comparison.

TABLE 1—COMPARISON OF ACTUAL EMISSIONS UNDER THE TEXAS SO_2 TRADING PROGRAM AND PRESUMPTIVE BART [109]

	2021 Actual emissions (tons)	Presumptive BART emissions plus max. emissions for non-BART (tons)
Total (SO_2 Trading Program Units)	129,790	88,023
Total (Subject-to-BART units only)	96,601	24,108

Because the alternative program under review, the Texas SO_2 Trading Program, results in much higher emissions than source-specific BART, we are proposing to find that the Texas SO_2 Trading Program does not meet the requirements of a BART alternative under 40 CFR 51.308(e)(2). As discussed earlier, if the distribution of emissions under the alternative program is not substantially different than under BART, and the alternative program results in greater emissions reductions of each relevant pollutant than under BART, then the alternative program may be deemed to achieve greater reasonable progress.[110] The Texas SO_2 Trading Program under review does not result in greater emission reductions than under BART. Rather, compared to the presumptive BART scenario, emissions from sources covered by the Texas SO_2 Trading Program are similar or higher. Furthermore, the Texas SO_2 Trading Program does not secure emission reductions at non-BART sources in Texas to compensate for the higher than BART emissions at the Texas BART sources. In these situations, a BART alternative program can only achieve greater reasonable progress than BART when emission reductions from non-BART sources are large enough (or the resulting visibility benefits from those reductions are large enough) to compensate for smaller emission reductions at BART sources than would be achieved under source-specific BART.

This finding that the Texas SO_2 Trading Program, which was designed to achieve a stringency level on par with CSAPR, does not achieve greater reasonable progress than BART, when isolated to the units in Texas, is not surprising, and it does not undermine the continued validity of CSAPR as a BART-alternative in other States. As discussed earlier in Section IV.B.2, the CSAPR program resulted in large emission reductions anticipated to occur in the eastern half of the country due to its coverage of both many BART sources and many non-BART sources. However, this was not true for every State. Texas, for instance, generally had higher emissions under the CSAPR BART alternative compared to source-specific BART, since it had relatively more BART-eligible sources compared to many other States in the eastern United States. As discussed, Texas was removed from the CSAPR SO_2 trading program in September 2017, and therefore, cannot rely on the reductions in the eastern half of the country brought about by CSAPR because the Texas SO_2 Trading Program is independent of CSAPR. As an independent BART alternative, the Texas SO_2 Trading Program is deficient because it secures no additional emission reductions from any non-BART sources and, as demonstrated, the BART emission reductions that would need to be offset are very large. Because the Texas SO_2 Trading Program secures no reductions (and in fact would have permitted significant growth in emissions from current levels), the establishment of source-specific BART emission limits would result in large additional emission reductions by comparison that would result in comparatively greater visibility benefits. Accordingly, the Texas SO_2 Trading Program does not provide for greater reasonable progress than the installation and operation of BART, and therefore, fails to meet the requirements for a BART alternative under the Regional Haze Rule. Thus, we are proposing to withdraw the Texas SO_2 Trading Program and instead propose to satisfy the Regional Haze Rule's SO_2 BART requirements through conducting a source-specific BART analysis for certain BART-eligible EGU sources identified in Sections VII and VIII of this action.

V. CSAPR Participation as a BART Alternative

A. Introduction

If the proposed source-specific BART requirements in Texas are finalized, the analytical basis within the EPA's withdrawal of Texas from the CSAPR trading programs for annual NO_X and SO_2 in September of 2017 will be restored (82 FR 45481). Therefore, the EPA is proposing to find that, if this proposal to implement source-specific BART requirements at certain EGUs in Texas is finalized, the analytical basis for concluding that the implementation of CSAPR in the remaining covered States will continue to meet the criteria for a BART alternative for those States remains valid. Related to this finding, the EPA is also proposing to deny a 2020 administrative petition for partial reconsideration brought by Sierra Club, National Parks Conservation Association (NPCA), and Earthjustice of the EPA's June 2020 denial of a 2017 petition to reconsider the EPA's original September 2017 finding, the details of which are provided in the next sections. Based on this analysis, the EPA is affirming the current Regional Haze Rule provision allowing States whose EGUs continue to participate in a CSAPR trading program for a given pollutant to continue to rely on CSAPR participation as a BART alternative for its BART-eligible EGUs for that pollutant. The public is invited to comment on this proposed basis for denying the 2020 petition for partial reconsideration.

B. Background

1. CSAPR Better-Than-BART

a. General Background

CSAPR (76 FR 48208; Aug. 8, 2011) implements a series of emissions trading programs for sulfur dioxide (SO_2) and nitrogen oxides (NO_X) across the eastern United States to address interstate ozone and fine particulate ($PM_{2.5}$) pollution under CAA section 110(a)(2)(D)(i)(I) (the ''good neighbor provision'').[111] The EPA has issued regulations allowing the CSAPR States to rely on participation in these trading programs in lieu of requiring source-specific BART controls at their BART-eligible EGUs covered by one or more of the CSAPR trading programs with respect to the visibility pollutant at issue (*i.e.,* NO_X or SO_2). *See*

[109] *See* ''Annual EI Texas thru 2021.xlsx'' available in the docket for this action.

[110] 40 CFR 51.308(e)(2)(E), (e)(3).

[111] 42 U.S.C. 7410(a)(2)(D)(i)(I).

40 CFR 51.308(e)(4).[112] This determination authorizing reliance on CSAPR participation as a BART alternative is often referred to as ''CSAPR Better-Than-BART.'' [113]

In the EPA's 2012 action promulgating CSAPR Better-Than-BART, the EPA used air quality modeling to show CSAPR met the two-pronged numerical test for a BART alternative.[114] To account for certain CSAPR State-budget increases that were made after the initial modeling was conducted, the 2012 CSAPR Better-Than-BART determination also included a sensitivity analysis (2012 sensitivity analysis) that examined the effect of those budget increases on the modeled visibility impacts for the CSAPR scenario.[115] In the 2012 action, the EPA found that under a scenario analyzing the visibility benefits of CSAPR (referred to as the ''CSAPR + BART-Elsewhere'' scenario), visibility would not decline in any Class I area compared to a baseline scenario, satisfying the first prong of the two-pronged BART-alternative test. The EPA also found that the CSAPR + BART-Elsewhere scenario would result in an overall improvement in visibility on average across affected Class I areas, as compared to a scenario analyzing visibility benefits resulting from ''presumptive'' BART limits at all BART-eligible sources (referred to as the ''nationwide BART'' scenario), satisfying the second prong of the two-pronged BART-alternative test. The EPA's findings held true whether looking at the 60 Class I areas in the eastern U.S. most heavily impacted by the sources subject to CSAPR or looking at all 140 Class I areas in the continental United States. The United States Court of Appeals for the D.C. Circuit (D.C. Circuit) upheld this action in *UARG* v. *EPA,* 885 F.3d 714 (D.C. Cir. 2018) (*UARG II*).

To account for certain CSAPR State-budget increases that were made after the initial modeling was conducted, the 2012 CSAPR Better-Than-BART determination also included a sensitivity analysis (2012 sensitivity analysis) that examined the effect of those budget increases on the modeled visibility impacts for the CSAPR + BART-Elsewhere scenario.[116] The EPA determined that the increases in SO_2 and NO_X budgets were small enough that they did not require a comprehensive set of new power sector and air quality modeling. Instead, the 2012 sensitivity analysis applied a simple, but very conservative adjustment factor to the existing quantitative air quality modeling results to show that, even with the higher emissions budgets, the CSAPR + BART-Elsewhere scenario was still projected to show greater reasonable progress toward natural visibility than the Nationwide BART scenario. Specifically, the 2012 sensitivity analysis applied adjustments to visibility impacts in the CSAPR + BART-Elsewhere scenario to account for increases in the SO_2 budgets for Texas and Georgia, since SO_2-driven impacts were the most important impacts in the analysis and Texas and Georgia had the largest SO_2 budget increases.

The 2012 sensitivity analysis identified sets of Class I areas that are most impacted by emissions in Texas (9 areas) and Georgia (7 areas) and assumed that *all* of the modeled visibility improvement in those sets of Class I areas is due to SO_2 emissions reductions from either Texas or Georgia, respectively. This methodology is highly conservative because the projected SO_2 emissions reductions in Texas and Georgia represented only 4.4 percent and 1.8 percent, respectively, of the total projected regional emissions reductions in the CSAPR + BART-Elsewhere scenario, and the Class I areas most impacted by Texas and Georgia emissions are also affected by the very large emissions reductions projected from other States in the regional CSAPR + BART-Elsewhere scenario. By assuming a linear relationship between emissions increases in Texas and Georgia and visibility degradation in those Class I areas, the EPA very conservatively determined that even with the budget increases, the CSAPR + BART-Elsewhere scenario was projected to achieve greater visibility improvement than the Nationwide BART scenario on average across all 60 eastern Class I areas and all 140 nationwide Class I areas, thereby satisfying the second prong of the two-pronged test under 40 CFR 51.308(e)(3). The sensitivity analysis also showed no visibility degradation in the CSAPR + BART-Elsewhere scenario relative to the baseline scenario at any Class I area, thereby satisfying the first prong of the test.

b. The CSAPR Remand and the EPA's 2017 Affirmation of CSAPR Better-Than-BART

The original 2011 CSAPR action was largely upheld by the Supreme Court in 2014.[117] However, the case was remanded to the D.C. Circuit to assess whether the EPA may have ''over-controlled'' certain States for purposes of implementing the good neighbor provision. In *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118 (D.C. Cir. 2015), based on this potential for overcontrol, the court remanded certain State budgets to the EPA, including Texas' SO_2 budget, which the EPA had established to address $PM_{2.5}$ transport.

To address the remand, in November 2016, the EPA proposed to remove Texas EGUs from the CSAPR SO_2 Group 2 Trading Program as well as the CSAPR NO_X Annual Trading Program, which similarly addressed $PM_{2.5}$ transport.[118] The EPA indicated that if the withdrawal was finalized, Texas would no longer be eligible under 40 CFR 51.308(e)(4) to rely on participation of its EGUs in a CSAPR trading program as an alternative to source-specific SO_2 BART determinations.[119] The EPA also provided a proposed analysis (2016 proposed analysis) showing that the changes in the geographic scope of CSAPR coverage since the EPA's original 2012 CSAPR Better-Than-BART determination, including the proposed withdrawal of Texas EGUs from the CSAPR SO_2 and annual NO_X trading programs, would not have altered the 2012 determination because the changes would not have altered the EPA's analytical findings that both prongs of the two-pronged test for a BART alternative under 40 CFR 51.308(e)(3) were satisfied.[120]

In September 2017, the EPA finalized the withdrawal of Texas EGUs from the

[112] The EPA had previously made a similar finding for the predecessor to CSAPR, the Clean Air Interstate Rule (CAIR), and this determination was upheld in *UARG* v. *EPA,* 471 F.3d 1333 (D.C. Cir. 2006) (*UARG I*).

[113] 77 FR 33642 (June 7, 2012).

[114] 40 CFR 51.308(e)(3); *See generally* 77 FR 33642 (June 7, 2012).

[115] *See* 77 FR 33642, 33651–52; This sensitivity analysis was included in a technical memo accompanying the 2012 action. *See* ''Sensitivity Analysis Accounting for Increases in Texas and Georgia Transport Rule State Budgets,'' Docket ID No. EPA–HQ–OAR–2011–0729 and in the docket for this action at document ID EPA–R06–OAR–2016–0611–0113.

[116] *See* 77 FR 33642, 33651–52; This sensitivity analysis was included in a technical memo accompanying the 2012 action. *See* ''Sensitivity Analysis Accounting for Increases in Texas and Georgia Transport Rule State Budgets,'' Docket ID No. EPA–HQ–OAR–2011–0729 and in the docket for this action at document ID EPA–R06–OAR–2016–0611–0113.

[117] *EPA* v. *EME Homer City Generation, L.P.,* 572 U.S. 489 (2014).

[118] *See* 81 FR 78954 (Nov. 10, 2016).

[119] *Id.* at 78956; the EPA also noted that because Texas EGUs would continue to participate in a CSAPR trading program for ozone-season NO_X emissions, Texas would still be eligible under 40 CFR 51.308(e)(4) to rely on CSAPR participation as an alternative to source-specific NO_X BART determinations for the covered sources. 81 FR at 78962.

[120] *See id.* at 78961–64.

CSAPR SO_2 and annual NO_X programs.[121] In the same action, the EPA also issued its final analysis (2017 final analysis) showing that, even with Texas EGUs no longer participating in these programs (and other changes in the geographic coverage of CSAPR), the EPA's original 2012 analytical finding that CSAPR is better than BART remained valid.[122] In response to comments received on the 2016 proposed analysis, the EPA's 2017 final analysis included an evaluation of the potential impact of emissions shifting under both prongs of the two-pronged test for a BART alternative under 40 CFR 51.308(e)(3). This analysis focused on the fact that if Texas sources were withdrawn from the CSAPR SO_2 Group 2 Trading Program, they would no longer purchase up to 22,300 SO_2 allowances from sources in other Group 2 States, as had been projected in the CSAPR + BART-Elsewhere scenario used in the 2012 CSAPR Better-Than-BART determination. As to the first prong, the EPA explained that, relative to a baseline scenario without CSAPR or BART, a revised CSAPR + BART-Elsewhere scenario with an increased quantity of SO_2 allowances available for use by units in other Group 2 States would still show no visibility degradation at any Class I area because, absent unusual circumstances that the EPA showed were not expected to occur in this case, all units in the remaining Group 2 States would still have stronger incentives to control their SO_2 emissions in the revised CSAPR + BART-Elsewhere scenario (with some positive allowance price) than in the baseline scenario (without any allowance price).[123]

As to the second prong, the EPA assumed that the availability of 22,300 additional allowances would result in a 22,300-ton increase in emissions in the remaining Group 2 States, but observed that the potential adverse visibility impacts of those emissions would be more than offset by the favorable visibility impacts of at least 127,300 tons of reduced emissions in Texas under presumptive source-specific SO_2 BART for the State's BART-eligible EGUs.[124] In other words, under the methodological framework the EPA devised in 2012 to compare CSAPR with BART, *see* 77 FR 33648–49, the EPA concluded that the ''Transport Rule [CSAPR] + BART Elsewhere'' scenario would still outperform the ''Nationwide BART'' scenario, even if Texas's EGU BART sources fell under the ''BART Elsewhere'' category rather than the CSAPR category. Thus, the EPA's conclusion that CSAPR satisfied the second prong of the two-pronged test rested in part on assuming net SO_2 reductions of approximately 105,000 tons from presumptive source-specific BART in Texas, after accounting for the potential for shifting of 22,300 tons of emissions from Texas to the remaining Group 2 States.[125]

2. Promulgation and Affirmation of the Texas SO_2 Trading Program as a BART Alternative

As explained in Section II.C, rather than finalize source-specific BART SO_2 emission limits for subject-to-BART EGUs in Texas (as had been assumed in the September 2017 finding affirming CSAPR as better than BART), the EPA took final action in October 2017 establishing an intrastate trading program for SO_2 for certain Texas EGUs as an alternative to BART.[126] On June 29, 2020, after completing rulemaking proceedings on reconsideration, the EPA affirmed the Texas SO_2 Trading program as a BART alternative, with certain amendments as proposed in November 2019.[127] This rulemaking, its rationale, and subsequent reconsideration and affirmation in June 2020 are summarized in Section II.C and are not repeated here.

3. The EPA's Denial of Petition for Reconsideration of the 2017 Affirmation of CSAPR As a BART Alternative

On November 28, 2017, the Sierra Club and NPCA submitted a petition for partial reconsideration (2017 petition) under CAA section 307(d)(7)(B) of our September 29, 2017 action withdrawing Texas from the CSAPR trading programs for SO_2 and annual NO_X and affirming that CSAPR participation continues to satisfy requirements as a BART alternative (September 2017 Final Rule).[128] The petitioners alleged that it was impracticable, and indeed impossible, to comment on the relationship between the Texas SO_2 Trading Program and the CSAPR Better-Than-BART analysis in the final rule because the EPA did not finalize the Texas SO_2 Trading Program until after the final rule was signed and the EPA had assumed presumptive source-specific SO_2 BART controls in the rulemaking record for the final rule.[129] The petitioners also alleged it was impracticable to comment on other aspects of the EPA's geographic emissions shifting analysis, which was not presented until the final rule.[130] The petitioners argued that both sets of issues are of central relevance to the September 2017 Final Rule.

With respect to the BART requirements in Texas, the petitioners argued that the final rule was ''impermissibly based upon a factual predicate that no longer exists—namely, that sulfur dioxide emission reductions associated with the installation of presumptive source-specific BART would be install [sic] at Texas EGUs.'' [131] The petitioners went on to purportedly demonstrate, using the 2012 sensitivity analysis methodology developed by the EPA, that source-specific BART in Texas would improve visibility in Class I areas in or affected by Texas more than CSAPR or the Texas SO_2 Trading Program.[132]

Concurrently with the affirmation of the Texas SO_2 Trading Program on June 29, 2020, the EPA issued a denial of the 2017 petition (2020 Denial).[133] In addition to addressing the other objections raised in the 2017 petition,[134]

[121] *See* 82 FR 45481 (September 29, 2017).

[122] *See id.* at 45490–94.

[123] *Id.* at 45493.

[124] *Id.* at 45493–94.

[125] 82 FR 45493–94.

[126] *See* 82 FR 48324 (October 17, 2017); In the same January 2017 and October 2017 notices, the EPA also proposed and finalized action to rely on CSAPR participation as a NO_X BART alternative for Texas EGUs, *see* 82 FR at 946; 82 FR at 48361.

[127] 85 FR 49170 (Aug. 12, 2020).

[128] The Sierra Club and National Parks Conservation Association, Petition for Partial Reconsideration of Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas; Final Rule; 82 FR 45,481 (September 29, 2017); EPA–HQ–OAR–2016–0598; FRL–9968–46–OAR (November 28, 2017).

[129] *Id.* at 8–9.

[130] *Id.* at 9.

[131] *Id.* at 10.

[132] *Id.* at 11–13.

[133] 85 FR 40286 (July 6, 2020) (''2020 Denial''); *See, e.g.,* Letter from U.S. EPA Administrator Andrew Wheeler to Joshua Smith, Sierra Club, denying petition for reconsideration (June 29, 2020), Docket ID EPA–HQ–OAR–2016–0598–0036. The EPA concurrently sent identical letters to other petitioners. This letter, rather than the **Federal Register** notice, is what we refer to when citing specific pages in the ''2020 Denial.''

[134] In their 2020 petition for partial reconsideration summarized below, Petitioners did not renew their objections as to other aspects of the EPA's analysis in the 2020 Denial and therefore these issues will not be summarized here. As to the issues not raised in their 2020 petition, but addressed in denying their 2017 petition, the EPA is not reopening the bases for denial of these objections set forth in its 2020 Denial letter. We note that in their 2020 petition for partial reconsideration, Petitioners noted that they ''continue to object'' to the EPA's use of ''presumptive'' BART limits in its CSAPR better than BART analysis. See 2020 Petition at 5 n.10. The EPA is not revisiting this issue here. The EPA explained in its 2020 Denial why this objection did not meet either prong of the CAA section 307(d)(7)(B) test for mandatory reconsideration, including that petitioners could have, but did not, comment on this issue in the original 2017 affirmation rulemaking proceeding. See 2020 Denial at 19–20.

the EPA included an updated sensitivity analysis (2020 sensitivity analysis) assessing whether CSAPR would remain a valid BART alternative based on assumptions regarding emissions performance under the Texas SO_2 Trading Program rather than source-specific BART.[135] The EPA used the same methodology it had used in its 2012 CSAPR Better-Than-BART determination and applied an emissions assumption for the Texas SO_2 Trading Program used by Petitioners in their 2017 petition of 320,600 tons of SO_2 per year. The EPA also used an assumption that there would be a 22,300-ton increase in emissions in a single State in the Group 2 trading program, Georgia.[136] The EPA presented the results of this analysis in Table 3 of the 2020 Denial, and we asserted that for purposes of the ''prong 2'' portion of the BART analysis, that CSAPR continued to perform equal to or better than BART.[137] Based on this analysis, the EPA reaffirmed the 2012 CSAPR Better-Than-BART determination, albeit now on the assumption of the Texas SO_2 Trading Program operating in Texas rather than CSAPR or presumptive source-specific BART.[138]

C. Summary of the 2020 Petition for Reconsideration and Associated Litigation

On August 28, 2020, the Sierra Club, NPCA, and Earthjustice submitted a petition for partial reconsideration under CAA section 307(d)(7)(B) of the EPA's 2020 Denial of their November 2017 petition for reconsideration (2020 petition).[139] The petitioners alleged that because the EPA presented the updated CSAPR Better-than-BART sensitivity calculations for the first time in its 2020 Denial of the 2017 Petition (and thus they were not afforded an opportunity to comment), and because that updated analysis is of central relevance to the September 2017 Final Rule, the EPA must reconsider both actions under CAA section 307(d)(7)(B). The petitioners alleged that, contrary to the EPA's conclusions in its 2020 Denial, the updated CSAPR Better-Than-BART analysis demonstrates that visibility improvement under CSAPR is *not* equal to or greater than visibility improvement under source-specific BART averaged over all 140 Class I areas, or the 60 eastern Class I areas covered by CSAPR.[140]

Specifically, Petitioners note that had the EPA's results been reformatted to display two decimal places instead of one, the average visibility improvement for the CSAPR + BART-Elsewhere scenario would have been less than that of the Nationwide BART scenario on two of the four metrics used.[141] Thus, Petitioners concluded that the EPA's 2020 sensitivity analysis proves that the visibility improvement in the CSAPR + BART-Elsewhere scenario, with the adjustments made to Texas's and Georgia's emissions, is not equal to or greater than the visibility improvement in the Nationwide BART scenario. Moreover, Petitioners also argue that it was impracticable for them to raise these issues concerning the sensitivity analysis during the comment period for the September 2017 Final Rule because the sensitivity calculations were presented for the first time in the 2020 Denial.[142] The Petitioners claim that the data within the 2020 sensitivity analysis addresses an issue of central relevance to the September 2017 Final Rule, *i.e.,* whether CSAPR results in an overall improvement in visibility compared to source-specific BART. Moreover, because Petitioners claim that the EPA's sensitivity analysis showed that source-specific BART would result in greater visibility improvement than CSAPR, they argue that the EPA's continued reliance on CSAPR as a BART alternative is arbitrary, capricious, and contrary to law.[143]

Sierra Club, NPCA, and Earthjustice also filed a petition for judicial review of the 2020 Denial in the U.S. Court of Appeals for the District of Columbia.[144] On November 3, 2020, this challenge and the Petitioners' preexisting challenge to the September 2017 final analysis (No. 17–1253 (D.C. Cir.)) were consolidated. On January 13, 2021, the court placed the petitions for review in abeyance pending further order of the court, and the court directed the parties to file motions to govern following the EPA's action on the 2020 petition.

The EPA is now proposing to deny the 2020 petition in this action.

D. Criteria for Granting a Mandatory Petition for Reconsideration

Under section 307(d)(7)(B) of the Act, ''[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment . . . may be raised during judicial review.'' [145] However, ''[i]f a person raising an objection can demonstrate . . . that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment . . . and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule.'' [146] The EPA considers an objection to be of ''central relevance'' to the outcome of a rule ''if it provides substantial support for the argument that the regulation should be revised.'' [147]

E. The EPA's Evaluation of the Petition for Reconsideration

The EPA proposes to deny the 2020 petition because the objections raised to the 2020 Denial are not ''centrally relevant'' under a scenario in which the EPA finalizes the proposal to withdraw the present BART-alternative intrastate trading FIP for Texas EGUs and replaces those requirements with source-specific SO_2 BART requirements. Under this scenario, the findings made in the September 2017 Final Rule (*i.e.,* the EPA's finding that CSAPR remains better than BART) can be affirmed. The Agency acknowledges that the petitioners raised legitimate questions in the 2020 petition concerning the 2020 sensitivity analysis and the conclusion that CSAPR remains better than BART in a scenario in which the Texas SO_2 Trading Program is implemented. However, with this proposal and the return to source-specific BART requirements in Texas, this issue is effectively resolved. The 2020 petition can therefore be denied since the

[135] 2020 Denial at 13–16.

[136] *Id.* at 14–15.

[137] *Id.* at 16.

[138] Note that neither in the 2020 Denial or in this present proposal are we reopening our determination in the September 2017 Final Rule that withdrawal of Texas from the annual NO_X trading program would have caused sufficient changes in modeled NO_X emissions in a revised CSAPR scenario to materially alter the visibility impacts comparison. *See* 82 FR 45492 n.82. As detailed in the November 2016 proposal, projected annual NO_X emissions from Texas EGUs were only 2,600 tons higher than the annual NO_X emissions projected for the CSAPR + BART-Elsewhere case, in which it was assumed that the EGUs were subject to CSAPR requirements for both ozone-season and annual NO_X emissions. The EPA determined that this relatively small increase in NO_X emissions in the CSAPR + BART-Elsewhere case would have been too small to cause any change in the results of either prong of the two-pronged CSAPR-Better-Than-BART test.

[139] Petition for Partial Reconsideration of Denial of Petition for Reconsideration and Petition for Reconsideration of the Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas (Aug. 28, 2020), Docket ID EPA–HQ–OAR–2016–0598–0041.

[140] *Id.* at 9.

[141] *Id.* at 11.

[142] *Id.* at 12.

[143] *Id.* at 13.

[144] *National Parks Conservation Association et al.* v. *EPA,* No. 20–1341 (D.C. Cir. filed Sept. 4, 2020).

[145] 42 U.S.C. 7607(d)(7)(B).

[146] *Id.*

[147] *See Coal. For Responsible Regulation, Inc.* v. *EPA,* 684 F.3d 102, 125 (D.C. Cir. 2012) (internal citation and quotation omitted).

objection raised is no longer centrally relevant.

For purposes of the 2012 analytic demonstration that CSAPR provides for greater reasonable progress than BART, the EPA treated Texas EGUs as subject to CSAPR for SO_2 and annual NO_X (as well as ozone-season NO_X). In the September 2017 Final Rule, the EPA recognized that the treatment of Texas EGUs in the 2012 analysis would have been different if those sources were not in the CSAPR SO_2 and annual NO_X programs. To address potential concerns about continuing to rely on CSAPR participation as a BART alternative for EGUs in the remaining CSAPR States, the EPA provided an analysis explicitly addressing the potential effect on the 2012 analytic demonstration if the treatment of Texas (and several other States') EGUs had been consistent with the updated scope of CSAPR coverage following the D.C. Circuit's remand of CSAPR in *EME Homer City.* In particular, in its September 2017 Final Rule, the EPA assumed that, as for all other non-CSAPR States, Texas EGUs would be subject to presumptive, source-specific SO_2 BART limits.

As discussed below, if the EPA's proposal in this action to implement source-specific BART requirements at certain EGUs in Texas is finalized, the analytical basis for the EPA's September 2017 conclusions will be restored, and that analysis will continue to support the conclusion that CSAPR participation would achieve greater reasonable progress than BART, despite the change in the treatment of Texas EGUs. Consequently, by virtue of this proposed action that relates to Texas, the EPA is also able to propose to reaffirm the continued validity of the CSAPR better-than-BART provision, 40 CFR 51.308(e)(4), which authorizes the use of CSAPR participation as a BART alternative for BART-eligible EGUs for a given pollutant in States whose EGUs continue to participate in a CSAPR trading program for that pollutant. In the September 2017 Final Rule, the EPA evaluated whether a revised CSAPR scenario reflecting the removal of Texas EGUs from the CSAPR SO_2 program (and other changes in CSAPR's geographic scope) would continue to satisfy the two-pronged test under 40 CFR 51.308(e)(3). Regarding the changes in CSAPR requirements for Texas EGUs, the EPA determined that the changes would have no adverse impact on the 2012 analytic demonstration. Finalization of this proposal would restore the analytical bases for the EPA's conclusions in the September 2017 Final Rule. We discuss that analysis in the following paragraphs and explain how it would be restored if this action is finalized as proposed.

As the EPA concluded in the September 2017 Final Rule, Texas EGUs are ineligible to rely on CSAPR as an SO_2 BART alternative. In this proposal, we are affirming this position and rejecting the contrary arguments that the Agency previously put forward in support of the Texas BART-alternative FIP, as explained above in Section IV. As explained in the November 2016 proposal,[148] if this information had been available at the time of the 2012 CSAPR Better-than-BART demonstration, the treatment of Texas EGUs in the baseline case and in the Nationwide BART case would not have changed, but in the CSAPR + BART-Elsewhere case, Texas EGUs would have been treated as subject to source-specific SO_2 BART instead of being treated as subject to CSAPR SO_2 requirements. In the case of Texas, the projected SO_2 emissions from affected EGUs in the modeled Nationwide BART scenario (139,300 tons per year) are considerably lower than the projected SO_2 emissions from the affected EGUs in the CSAPR + BART-Elsewhere scenario (266,600 tons per year as modeled, and up to approximately 317,100 tons, as addressed in the 2012 sensitivity analysis).

As modeled, treating Texas EGUs in the CSAPR + BART-Elsewhere scenario as subject to source-specific SO_2 BART instead of CSAPR SO_2 requirements would therefore have reduced projected SO_2 emissions by between 127,300 tons and approximately 177,800 tons in this scenario, thereby improving projected air quality in this scenario relative to projected air quality in both the Nationwide BART scenario and the baseline scenario.[149] At the lower end of this range, a reduction in SO_2 emissions of 127,300 tons would represent a reduction of over four percent of the total SO_2 emissions from EGUs in all modeled States in the CSAPR + BART-elsewhere scenario. The EPA has previously observed that the visibility improvements from CSAPR relative to BART are primarily attributable to the greater reductions in SO_2 emissions from CSAPR across the overall modeled region in the CSAPR + BART-Elsewhere scenario relative to the Nationwide BART scenario.

With a return to source-specific SO_2 BART requirements at the relevant Texas EGUs, this analysis will continue to (or, once again will) be valid. Further, we propose to find that the conclusions reached in the September 2017 Final Rule regarding ''emissions shifting'' from Texas back into the remaining CSAPR region would remain valid if source-specific BART requirements are implemented at the relevant Texas EGUs. The September 2017 Final Rule responded to a comment regarding potential ''emissions shifting'' when Texas was removed from the CSAPR SO_2 trading program. For purposes of the second prong, to account for the effect of potential emissions shifting caused by the fact that Texas sources would no longer purchase SO_2 allowances from sources in other CSAPR Group 2 States, the EPA assumed that SO_2 emissions in Georgia could increase by up to 22,300 tons, the quantity of allowances that Texas had been projected to purchase from the other Group 2 States in the original CSAPR scenario. However, as detailed above, the EPA showed in 2017 that a potential shift of up to 22,300 SO_2 tons to Georgia (or other CSAPR States) would be dwarfed by the lower SO_2 tons emitted in Texas under a source-specific BART scenario (127,300 tons or more). Therefore, the EPA proposes that the September 2017 Final Rule's conclusion that CSAPR would continue to pass both prongs of the better-than-BART test, even accounting for emissions shifting, remains valid (or will once again be valid) if this proposal is finalized and source-specific BART is implemented in Texas.

In summary, the EPA proposes to affirm that if the information regarding the proposed withdrawal of CSAPR FIP requirements for SO_2 for Texas EGUs had been available at the time of the 2012 CSAPR Better-than-BART analytic demonstration, the CSAPR + BART-Elsewhere scenario would have reflected SO_2 emissions from Texas EGUs under presumptive source-specific BART. This would have been 127,300 or more tons per year lower than the emissions projections under CSAPR and remains a valid assumption so long as the presumed source-specific SO_2 BART reductions are in fact required in Texas. Under this assumption—which is, again, made possible by withdrawing the current BART-alternative FIP and implementing source-specific BART in Texas as outlined in this proposal—emissions would not have changed in the Nationwide BART or baseline scenarios. Instead, modeled visibility improvement in the CSAPR + BART-Elsewhere scenario would have been

[148] *See* 81 FR 78954 (Nov. 10, 2016).

[149] As explained in greater detail in Section IV, while many States participating in CSAPR were projected to have substantially lower SO_2 emissions under CSAPR as compared to implementing BART requirements, this was not the case for Texas's EGUs.

even larger relative to the other scenarios than what was modeled in the 2012 analytic demonstration.

Lower SO_2 emissions in Texas (after implementation of source-specific BART) would clearly lead to more visibility improvement on the best and worst visibility days in the nearby Class I areas. Since the ''original'' CSAPR + BART-Elsewhere scenario passed both prongs of the better-than-BART test (compared to the Nationwide BART scenario and the baseline scenario), a modified CSAPR + BART-Elsewhere scenario without Texas in the CSAPR region would without question also have passed both prongs of the better-than-BART test. The EPA therefore further proposes that there is no need to do any new modeling or more complicated sensitivity analysis to affirm the findings of the September 2017 Final Rule. And for the same reason, there is no need to do any additional modeling or analysis to support this finding under the current Texas BART proposal in this action (*i.e.,* to withdraw the Texas SO_2 Trading Program and replace the FIP with source-specific BART for Texas EGUs), assuming this proposal is finalized.

Therefore, the EPA proposes to deny the 2020 petition for partial reconsideration and proposes to again affirm the use of CSAPR as a BART alternative for all States whose EGUs continue to participate in the CSAPR trading programs as to the relevant pollutants. Specifically, the EPA proposes to conclude that, if the present proposal and the restoration of the analytical premise for the findings of the September 2017 Final Rule are finalized, the objections that the 2020 petition for partial reconsideration raised as to the analysis the EPA presented in the 2020 Denial will be resolved and are therefore not of ''central relevance'' to the September 2017 Final Rule. We are providing the opportunity for, and invite, public comment on this proposed denial of the petition for partial reconsideration.

VI. The EPA's Authority To Promulgate a FIP Addressing SO_2 and PM BART

A. CAA Authority To Promulgate a FIP for SO_2 BART

Under section 110(c) of the CAA, whenever the EPA disapproves a mandatory SIP submission in whole or in part, the EPA is required to promulgate a FIP within 2 years unless we approve a SIP revision correcting the deficiencies before promulgating a FIP. The term ''Federal implementation plan'' is defined in Section 302(y) of the CAA in pertinent part as a plan promulgated by the Administrator to correct an inadequacy in a SIP.

Beginning in 2012, following the limited disapproval of the Texas Regional Haze SIP, the EPA has had the authority and obligation to promulgate a FIP to address BART for Texas EGUs for SO_2. As discussed in Section II, we exercised this FIP authority in October 2017 to promulgate a BART alternative (the Texas SO_2 Trading Program) to address the inadequacy of Texas's SIP as it pertained to BART requirements for Texas EGUs for SO_2. Because we are now proposing that the basis for the Texas SO_2 Trading Program as a BART alternative rested on an erroneous interpretation of our BART alternative regulations, and thus proposing to withdraw the program for the reasons explained throughout Section IV, we have an obligation under the CAA to promulgate a FIP in its place. We propose to exercise this FIP authority through conducting a source-specific BART analysis for those BART-eligible EGU sources participating in the Texas SO_2 Trading Program and, as appropriate, establish source-specific BART emission limits and associated compliance requirements, as identified in Sections VII and VIII of this action.

B. Error Correction and CAA Authority To Promulgate a FIP—PM BART

The EPA proposes that its prior approval of a portion of Texas's 2009 Regional Haze SIP related to its finding that no EGUs were subject to BART requirements for PM (PM BART) was in error under CAA section 110(k)(6). Section 110(k)(6) of the CAA provides the EPA with the authority to make corrections to actions that are subsequently found to be in error. *Ass'n of Irritated Residents* v. *EPA,* 790 F.3d 934, 948 (9th Cir. 2015) (explaining that 110(k)(6) is a ''broad provision'' enacted to provide the EPA with an avenue to correct errors). The EPA proposes that its approval of the portion of Texas's Regional Haze SIP addressing PM BART for EGUs was in error, as the approval was based on the Texas SO_2 Trading Program that was promulgated in error. Under CAA section 110(k)(6), once the EPA determines that its previous action approving a SIP revision was in error, the EPA may revise such action as appropriate without requiring any further submission from the State. To correct the error here, the EPA proposes to revise its previous approval of the portion of Texas's 2009 Regional Haze SIP addressing PM BART for EGUs and proposes to instead disapprove this portion of Texas's SIP.

In the 2009 Texas Regional Haze SIP, Texas conducted a screening analysis of the visibility impacts from PM emissions in isolation and determined that no EGUs were subject to BART for PM based on an assumption that BART requirements for EGUs for both SO_2 and NO_X were covered by participation in an earlier trading program (CAIR). This decision was consistent with a 2006 EPA memorandum titled ''Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations''; however, that memorandum stated that pollutant-specific screening is only appropriate in the limited situation where a State is relying on a BART alternative, such as a trading program, to address both NO_X and SO_2 BART.[150]

In our 2017 Texas BART FIP, we created the Texas SO_2 Trading Program as a BART alternative to satisfy SO_2 BART requirements for EGUs. As a result, the Texas BART FIP created a scenario in which Texas EGUs were again subject to trading programs to address both NO_X and SO_2 BART, and therefore, the EPA approved the pollutant-specific screening for PM as performed by Texas in its 2009 Regional Haze SIP submittal. Upon further consideration, and as described in more detail above in Section IV, we have determined that the Texas SO_2 Trading Program as promulgated in 2017, and affirmed in 2020, was based on an erroneous interpretation of our BART alternative regulations. As such, it failed to meet the requirements for a valid BART alternative and thus we are proposing to withdraw the Texas SO_2 Trading Program and to satisfy SO_2 BART requirements through conducting a source-specific BART analysis. The basis for approval of Texas's SIP related to the BART requirements for PM for EGUs rested on our creation of a BART alternative for SO_2, and we are proposing in this action to determine that the Texas SO_2 Trading Program is not a valid BART alternative. Consistent with our proposal regarding the Texas SO_2 Trading Program, we are also proposing that our approval of the portion of the 2009 Texas Regional Haze SIP related to PM BART requirements for EGUs was in error.

Accordingly, the EPA is proposing to correct its previous approval of the Texas 2009 Regional Haze SIP submittal related to PM BART for EGUs by proposing to disapprove Texas's pollutant-specific PM screening analysis and determination that PM BART emission limits are not required for any

[150] Memorandum from Joseph Paisie to Kay Prince, ''Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations,'' July 19, 2006, available in the docket for this action.

Texas EGUs. The EPA is proposing this action through an error correction under CAA section 110(k)(6). If the EPA finalizes this disapproval, the EPA will have the authority and obligation under CAA section 110(c)(1)(B), to promulgate a FIP within 2 years. As part of this rulemaking, the EPA proposes to promulgate a FIP addressing PM BART requirements and satisfying that FIP obligation. As discussed further in Section VII and Section VIII, the EPA is proposing source-specific PM BART requirements for those EGUs that we propose to find subject to BART.

VII. BART Analysis for SO_2 and PM

As discussed in Section IV of this action, we are proposing to withdraw the Texas SO_2 Trading Program previously established as an alternative to SO_2 BART for Texas EGUs. Thus, to satisfy SO_2 BART requirements for Texas, we are proposing to conduct a source-specific BART evaluation consistent with the BART Guidelines for appropriate EGU sources. Specifically, we must evaluate EGUs that were previously identified as BART-eligible, but for which no subject-to-BART determinations were made because they were included in the Texas SO_2 Trading Program. Additionally, because our approval of the portion of the Texas Regional Haze SIP related to PM BART for EGUs was in error, we are now proposing an error correction to disapprove that portion of the Texas SIP. We propose to address the deficiency through a source-specific BART evaluation consistent with the BART Guidelines for PM BART for the EGU sources that were previously identified as BART-eligible, but for which no subject-to-BART determinations were made because they were included in the Texas SO_2 Trading Program.

A. Identification of Sources Subject to BART

In January 2016, we approved Texas's determination of which non-EGU sources in the State are BART-eligible and the determination that none of the State's BART-eligible non-EGU sources are subject to BART because they are not reasonably anticipated to cause or contribute to visibility impairment at any Class I areas.[151] In our October 2017 Texas BART FIP,[152] and subsequent affirmation in 2020, addressing BART requirements for Texas EGUs, we noted that all BART-eligible EGUs in Texas are either covered by a BART alternative or have screened out of being subject to BART. Our October 2017 FIP lists the units covered by the BART alternative for SO_2 (*i.e.,* the Texas SO_2 Trading Program) and identifies which of those units are BART-eligible.[153] For those BART-eligible EGUs that were not covered by the Texas SO_2 Trading Program, we finalized determinations that those EGUs are not subject-to-BART for NO_X, SO_2, and PM based on screening methods as described in our 2017 proposed rule and BART Screening TSD.[154]

Because we are now proposing to withdraw the Texas SO_2 Trading Program, we must evaluate the EGU sources that were previously identified as BART-eligible, but for which no subject-to-BART determinations were made because they were included in the Texas SO_2 Trading Program. The sources included in the Texas SO_2 Trading Program are identified in Table 2.

TABLE 2—SOURCES INCLUDED IN THE TEXAS SO_2 TRADING PROGRAM

Owner/operator	Units	BART-eligible
AEP	Welsh Power Plant Unit 1	Yes.
	Welsh Power Plant Unit 2	Yes.
	Welsh Power Plant Unit 3	No.
	H W Pirkey Power Plant Unit 1	No.
	Wilkes Unit 1 †	Yes.
	Wilkes Unit 2 †	Yes.
	Wilkes Unit 3 †	Yes.
CPS Energy	J. T. Deely Unit 1	Yes.
	J. T. Deely Unit 2	Yes.
	O. W. Sommers Unit 1 †	Yes.
	O. W. Sommers Unit 2 †	Yes.
LCRA	Fayette/Sam Seymour Unit 1	Yes.
	Fayette/Sam Seymour Unit 2	Yes.
Luminant	Big Brown Unit 1	Yes.
	Big Brown Unit 2	Yes.
	Martin Lake Unit 1	Yes.
	Martin Lake Unit 2	Yes.
	Martin Lake Unit 3	Yes.
	Monticello Unit 1	Yes.
	Monticello Unit 2	Yes.
	Monticello Unit 3	Yes.
	Sandow Unit 4	No.
	Stryker ST2 †	Yes.
	Graham Unit 2 †	Yes.
	Coleto Creek Unit 1	Yes.
NRG	Limestone Unit 1	No.
	Limestone Unit 2	No.
	W. A. Parish Unit WAP4 †	Yes.
	W. A. Parish Unit WAP5	Yes.
	W. A. Parish Unit WAP6	Yes.
	W. A. Parish Unit WAP7	No.
Xcel	Tolk Station Unit 171B	No.
	Tolk Station Unit 172B	No.

[151] *See* 81 FR 296, 301 (Jan. 5, 2016).

[152] *See* 82 FR at 48328 (Oct. 17, 2017).

[153] 82 FR at 48329 (Oct.17, 2017).

[154] *See* 82 FR at 48328–29 (Oct.17, 2017). Table 2 in the October 2017 notice lists the EGUs that we finalized as being BART-eligible, but for which we determined were not be subject-to-BART based on various screening analysis as more fully described in the 2017 proposal (82 FR at 918–21). We are not reopening that determination in this action.

TABLE 2—SOURCES INCLUDED IN THE TEXAS SO_2 TRADING PROGRAM—Continued

Owner/operator	Units	BART-eligible
	Harrington Unit 061B	Yes.
	Harrington Unit 062B	Yes.
	Harrington Unit 063B	No.
El Paso Electric	Newman Unit 2 †	Yes.
	Newman Unit 3 †	Yes.
	Newman Unit **4 †	Yes.
	Newman Unit **5†	Yes.

† Gas-fired or gas/fuel oil-fired units.

Some of the BART-eligible sources that were included in the Texas SO_2 Trading Program have retired. Welsh Unit 2 retired in 2016 [155] and Big Brown,[156] Monticello,[157] and the J.T. Deely units retired at the end of 2018.[158] These shutdowns are permanent and enforceable because the CAA permits for these units have been cancelled or the units have been withdrawn from the facilities' Title V operating permits. These units may not return to operation without going through CAA new source permitting and Title V operating permitting requirements. Therefore, because the units are permanently retired, it is not necessary to include these units in our screening analysis to determine whether these sources are subject to BART.

To determine which of those remaining BART-eligible sources listed in Table 2 are anticipated to cause or contribute to visibility impairment in any Class I area (subject-to-BART),[159] the BART Guidelines state that CALPUFF or another appropriate model can be used to predict the visibility impacts from a single source at a Class I area. The BART source is the collection of BART-eligible emission units at a facility. A detailed discussion of the subject-to-BART screening analysis is provided in the 2023 BART Modeling TSD.[160] We summarize the methodology and results of this analysis here.

1. Modeling Approach

For States (or the EPA in the case of a FIP) using modeling to determine the applicability of BART to single sources, the first step in the BART Guidelines is to set a contribution threshold to assess whether the impact of a single source (collectively the BART-eligible units at a specific facility) is sufficient to cause or contribute to visibility impairment at a Class I area. The BART Guidelines preamble advises that, ''for purposes of determining which sources are subject to BART, States should consider a 1.0 deciview (dv) change or more from an individual source to 'cause' visibility impairment, and a change of 0.5 dv to 'contribute' to impairment.'' [161] The BART Guidelines further advise that ''States should have discretion to set an appropriate threshold depending on the facts of the situation,'' but ''[a]s a general matter, any threshold that you use for determining whether a source 'contributes' to visibility impairment should not be higher than 0.5 dv,'' and describe situations in which States may wish to exercise their discretion to set lower thresholds, mainly in situations in which a large number of BART-eligible sources within the State and in proximity to a Class I area justify this approach.[162] We do not believe that the sources under consideration in this rule, most of which are not in close proximity to a Class I area, merit the consideration of a lower contribution threshold. Therefore, our analysis employs a contribution threshold of 0.5 dv.

In this action we conducted modeling using both CALPUFF [163] and CAMx.[164] In the 2005 BART Guidelines, CALPUFF was in part chosen because it is much less resource intensive with respect to required computing power, run time, and development of model inputs than chemical transport models such as CAMx. Additionally, CAMx tools for assessing single source impacts were still undergoing development at that time. CAMx tools have advanced since 2005, and while still resource intensive, for this action we were able to conduct CAMx modeling using TCEQ's modeling platform as a starting point for this assessment. We discuss details of the CALPUFF and CAMx modeling systems throughout this section and in the 2023 BART Modeling TSD.

As recommended in the BART Guidelines, we performed stand-alone, source-specific CALPUFF modeling on several of the remaining BART-eligible sources included in Table 2 to determine which of the BART-eligible sources in Table 2 cause or contribute to visibility impairment in nearby Class I areas. CALPUFF is a multi-species non-steady-state puff dispersion model that simulates the effects of pollution transport, dispersion, transformation, and removal of emissions from modeled sources for transport distances beyond 50 km using general background concentrations to represent air pollution levels that the modeled sources emissions interact. Relevant guidance [165] States that the CALPUFF

[155] Welsh Unit 2 was retired on April 16, 2016, pursuant to a Consent Decree (No. 4:10–cv–04017–RGK) and subsequently removed from the Title V permit (permit no. O26). We have included the Consent Decree, permitting notes, and new Title V permit showing that the Unit is removed in the docket for this action.

[156] *See* letter dated March 27, 2018, from Kim Mireles of Luminant to the TCEQ requesting to cancel certain air permits and registrations for Big Brown available in the docket (EPA–R06–OAR–2016–0611–0132) for this action.

[157] *See* letter dated February 8, 2018, from Kim Mireles of Luminant to the TCEQ requesting to cancel certain air permits and registrations for Monticello available in the docket (EPA–R06–OAR–2016–0611–0130) for this action.

[158] *See* letter dated December 15, 2021, from Johnny Bowers, Team Leader Air Permits Division at TCEQ to Danielle Frerich regarding the cancellation of air quality permits for the J.T. Deely units available in the docket for this action.

[159] *See* 40 CFR part 51, Appendix Y, III, How to Identify Sources ''Subject to BART.''

[160] *See* our 2023 BART Modeling TSD in our docket.

[161] 70 FR at 39118.

[162] 70 FR at 39118.

[163] EPA used the version of CALPUFF approved previously for regulatory modeling (CALPUFF version 5.8.5, level 15214) as discussed on EPA's website (*https://www.epa.gov/scram/air-quality-dispersion-modeling-alternative-models*) and this CALPUFF version is available for download from Exponent at *https://www.src.com/*.

[164] CAMx is available for download at *https://www.camx.com/*.

[165] Interagency Workgroup on Air Quality Modeling (IWAQM) Phase 2 Summary Report and Recommendations for Modeling Long-Range Transport and Impacts on Regional Visibility, EPA-454/R–98–019, IWAQM, 1998; ''Federal Land Managers' Air Quality Related Values Workgroup (FLAG)'': Phase I Report, FLAG, USDI—National Park Service, Air Resources Division, Denver, CO.,

model is generally applicable at distances from 50 km to at least 300 km downwind of a source. However, previous Regional Haze BART SIP modeling conducted by consultants and the States extended beyond 300km for numerous BART analyses.[166] In fact, in evaluating the Texas 2009 Regional Haze SIP, the EPA, FLM representatives, and TCEQ agreed with using CALPUFF for Texas sources for distances out to 614 km.[167] Initially, CALPUFF results beyond 300 km were thought to be potentially conservative (overestimate impacts); however subsequent analysis of CALPUFF indicates that it can also underpredict impacts at ranges greater than 300km.[168] For this particular BART analysis, we chose to evaluate CALPUFF results out to approximately 450 km due to these potential uncertainties that seem to be larger at ranges greater than 450 km.[169] All BART-eligible sources that we modeled with CALPUFF in this action have at least one Class I area within the more typical CALPUFF range of 300km (see Table 3 for distance to most impacted Class I areas for each modeled source). This use of CALPUFF is consistent with the EPA's recommendation in the 2005 BART Guidelines [170] to determine whether a source is subject to BART and in conducting the BART analysis for those sources determined to be subject to BART.[171] We also have CAMx modeling results for all coal-fired BART-eligible sources and as such we have both CALPUFF and CAMx modeling results for the coal-fired sources within 450 km of Class I area(s). For those sources beyond 450 km, we only used CAMx modeling results as discussed in more detail later in this section.

Consistent with the BART Guidelines, for those sources modeled with CALPUFF, we compared the 98th percentile (equivalent to the 8th highest daily value in each year modeled) impact from the three modeled years to the 0.5 dv screening threshold following the modeling protocol described in the 2023 BART Modeling TSD.[172] The BART Guidelines recommend that States (or the EPA in the case of a FIP) use the 24-hour average actual emission rate from the highest emitting day of the meteorological period modeled, unless this rate reflects periods of start-up, shutdown, or malfunction. Consistent with this recommendation, in this action, we used the 24-hour average actual emission rate from the highest emitting day during the baseline period.

For this proposed action, we conducted modeling using a baseline period of emissions data of 2016–2020 and used meteorological data for 2016–2018 to evaluate source visibility impacts to Class I areas. Our selection of this baseline period for subject-to-BART screening modeling was made based on consideration of a number of factors. We note that most BART screening analyses, including the BART screening in the 2009 Texas Regional Haze SIP, were based on a 2000–2004 baseline period, used 2001–2003 meteorological data, and used 2002 in the baseline modeling to project 2018 visibility conditions for the first planning period SIPs. Our 2017 proposed rule also used this period.[173]

We selected the 2016–2020 emissions baseline period for subject-to-BART screening in this instance because recent actual emissions more accurately reflect future anticipated emissions which is required in evaluating controls. In addition, this emissions baseline period is consistent with the 2016–2018 meteorological period modeled. In this manner, the screening, visibility benefit analysis, cost analysis, and consideration of existing controls are all based on consideration of the same baseline meteorological time period, operating conditions, and emissions. The 2000–2004 baseline period is no longer representative of anticipated future emissions or current operations because more recent regulatory actions, such as the MATS rule, and market pressures have impacted how these units now operate. We also note that our previous use of baseline emissions data from 2000–2004 reflected steady-state operating conditions during periods of high-capacity utilization and was appropriate for the screening nature of the analysis rather than any specific federally enforceable limit in effect at that time. We believe this same approach, updated for 2016–2020, continues to serve the same function and provides a suitable estimate of emissions during high utilization for each of these sources. Additionally, it also allows the screening, visibility benefit analysis, cost analysis, and consideration of existing controls to all be based on the same baseline period for meteorological data, operating conditions, and emissions. Using an appropriate, updated baseline is also the foundation for evaluating control costs once a source is determined to be subject to BART. The BART determination includes consideration of past practices, existing controls, and anticipated future operation. The BART Guidelines state that in evaluating the costs of controls as part of the five-factor analysis for sources determined to be subject to BART, baseline annual emissions utilized for control cost analyses should be a realistic depiction of anticipated annual emissions for the source and calculated based upon continuation of past practice [174] in the absence of enforceable limitations.

2000. *https://www.nature.nps.gov/air/Pubs/pdf/flag/FlagFinal.pdf;* Revisions to the Guideline on Air Quality Models: Adoption of a Preferred Long Range Transport Model and Other Resources, 72 FR 18440 (Apr. 15, 2003).

[166] Historically, the EPA has indicated that use of CALPUFF was generally acceptable at 300 km and for larger emissions sources with elevated stacks, such as coal-fired power plants, we and FLM representatives have also allowed or supported the use of CALPUFF results at larger distances, beyond 400 km in some cases. For example, South Dakota used CALPUFF for Big Stone's BART determination, including its impact on multiple Class I areas further than 400 km away. See 76 FR 76646, 76654 (Dec. 8, 2011), 77 FR 24845 (Apr.26, 2012). Nebraska relied on CALPUFF modeling to evaluate whether numerous power plants were subject to BART where the ''Class I areas [were] located at distances of 300 to 600 kilometers or more from'' the sources. *See* Best Available Retrofit Technology Dispersion Modeling Protocol for Selected Nebraska Utilities, p. 3, EPA Docket ID No. EPA–R07–OAR–2012–0158–0008.

[167] In our 2014 proposed action and the 2016 final action on the 2009 Texas Regional Haze SIP, we approved the use of CALPUFF to screen BART-eligible non-EGU sources at distances of 400 to 614 km for some sources. 79 FR 74818 (Dec. 16, 2014), 81 FR 296 (Jan. 5, 2016).

[168] ''Documentation of the Evaluation of CALPUFF and Other Long Range Transport Models using Tracer Field Experiment Data'' (PDF)(247 pp, 8 MB, 05–01–2012, 454–R–12–003). Prepared for the U.S. Environmental Protection Agency by the ENVIRON International Corporation. (EPA Contract No: EP–D–07–102, Work Assignment No: 4–06); ''Evaluation of Chemical Dispersion Models using Atmospheric Plume Measurements from Field Experiments'' (PDF)(127 pp, 3 MB, 09–01–2012). Prepared for the U.S. Environmental Protection Agency by the ENVIRON International Corporation. (EPA Contract No: EP–D–07–102, Work Assignment No: 4–06 and 5–08); and ''Comparison of Single-Source Air Quality Assessment Techniques for Ozone, $PM_{2.5}$, other Criteria Pollutants and AQRVs'' (PDF)(143 pp, 19 MB, 09–01–2012). Prepared for the U.S. Environmental Protection Agency by the ENVIRON International Corporation. (EPA Contract No: EP–D–07–102, Work Assignment No: 4–06 and 5–08); *https://www.epa.gov/scram/air-modeling-reports-and-journal-articles.* See 2023 BART Modeling TSD for further discussion on this topic.

[169] We discuss the choice of using CALPUFF model results in the 300–450 km range in more detail in the 2023 BART Modeling TSD.

[170] *See* 70 FR 39104, 39122–23 (July 6, 2005).

[171] 70 FR at 39122.

[172] In the 2005 BART Guidelines the selection of the 98th percentile value rather than the maximum value was made to address concerns with CALPUFF's limitations that could result in the maximum from CALPUFF modeling being overly conservative. We state that, ''Most important, the simplified chemistry in the model tends to magnify the actual visibility effects of that source. Because of these features and the uncertainties associated with the model, we believe it is appropriate to use the 98th percentile—a more robust approach that does not give undue weight to the extreme tail of the distribution.'' 70 FR at 39121.

[173] See generally 82 FR 912 (January 4, 2017).

[174] Past practices can include a broad consideration of operations, changes in market

Continued

For both the CALPUFF and CAMx modeling, the maximum 24-hour emission rate (lb/hr) for NO_X and SO_2 from the 2016–2020 baseline period for each source was identified through a review of the daily emission data obtained from the EPA's Clean Air Markets Program Data [175] for each of the BART-eligible units included in Table 2. Because daily emissions are not available for PM, we used data from EPA's Air Markets Program Data and TCEQ's Central Registry EI information to obtain PM_{10} and $PM_{2.5}$ tpy emission rates for each year (2016–2020) on a unit basis. We used the annual average lb/MMBtu and the maximum daily heat input to calculate the maximum daily PM_{10} and $PM_{2.5}$ emissions rates that were used in the subject to BART modeling and were also used in the control cases. For the gas and gas/fuel oil facilities,[176] we utilized the heat input data from the EPA Clean Air Markets Division (CAMD) coupled with the EPA's AP–42 emission factors to estimate maximum PM_{10} and $PM_{2.5}$ emissions. The 2023 BART Modeling TSD includes additional discussion and source-specific information used in the CALPUFF modeling for this portion of the screening analysis.

As previously discussed, while the BART Guidelines recommend the use of CALPUFF to determine which sources are anticipated to contribute to visibility impairment, the Guidelines also allow the use of another ''appropriate model'' to predict the visibility impacts from a single source at a Class I area. Because some of these BART-eligible sources (included in Table 2) are beyond the distance to Class I areas for which CALPUFF modeling is typically used, we used photochemical grid modeling (CAMx) to evaluate the visibility impacts of those sources. In addition, we also used CAMx to evaluate the other BART-eligible coal-fired EGUs with SO_2 emissions located within the typical CALPUFF modeling range. The CAMx modeling includes all of these emission sources to provide a consistent approach to compare the modeling results across all these sources. CAMx is a photochemical grid model that is formulated to assess the long-range transport of emissions from sources up to distances of several thousand miles including emissions from sources outside the range that CALPUFF is typically utilized. CAMx allows modeling of impacts from individual sources and assessment of their impacts on Class I areas at distances much greater than the limited CALPUFF model system and accounts for all the other known emissions sources in the modeling domain that results in varying background pollution levels temporally and spatially that individual source emissions interact. Furthermore, CAMx is also more suited than other possible modeling approaches for evaluating the visibility impacts of SO_2, NO_X, VOC, and PM emissions, as it has a more robust chemistry mechanism that is continually updated as the scientific community of peers agree on chemistry, physics, and structural upgrades. As such, CAMx provides a scientifically defensible platform for the assessment of visibility impacts over a wide range of source-to-receptor distances that has been used by a number of States in development of their Regional Haze SIPs, including Texas.

Since CAMx modeling differs in several ways from CALPUFF modeling, we are using different metrics to evaluate BART visibility impacts from CAMx. For CAMx modeling, we utilize the maximum daily impact as the primary metric for BART screening and assessment of visibility impacts as compared to the use of the 98th percentile metric with CALPUFF. As explained in the 2023 BART Modeling TSD, this approach recognizes differences in the models and model inputs and their application in determining whether the source is anticipated to cause or contribute to visibility impairment. For example, one difference is that compared to CALPUFF, CAMx utilizes a more robust chemistry mechanism, thus the primary concern that drove the selection of the 98th percentile value for CALPUFF based modeling are not applicable. Furthermore, because the CAMx modeling uses a more limited meteorological data period (one year of meteorology instead of three years used for CALPUFF modeling), and CAMx modeling also uses only one receptor for the Class I area [177] versus the many receptors covering the entire area of the Class I area that are used in CALPUFF modeling, the maximum of the daily impacts at a Class I area is appropriate for determining if a source is subject to BART. The use of the maximum value from CAMx also comports with TCEQ's use of the maximum value from CAMx modeling for BART screening that TCEQ included in the 2009 Texas Regional Haze SIP.[178] [179] See the 2023 BART Modeling TSD for further discussion of the CALPUFF and CAMx modeling systems, the metrics evaluated, and the limitations and strengths of each modeling system.

For this proposed action, our CAMx modeling platform began with TCEQ's 2016 Modeling Platform,[180] namely TCEQ's 2016 emissions data, 2016 meteorological data, and other modeling files utilized in their CAMx modeling for TCEQ's Second Planning Period Texas Regional Haze SIP. We are using this updated modeling platform to reflect more recent meteorology and emissions inventories and have identified it to be the best available platform for modeling these sources in Texas.[181] We upgraded this modeling platform to the newest version of the CAMx model, adjusted emissions for BART-eligible units, and utilized

conditions, and unique situations that can impact emissions.

[175] *https://campd.epa.gov/. See* ''2016–2020 CAMD Data Evaluation.xlsx'' in the docket for this action.

[176] When we use the term ''gas,'' we mean ''pipeline natural gas.''

[177] For CAMx, we used the location coordinates of the 13 IMPROVE monitors that represent the 15 Class I areas, as was done in previous modeling. IMPROVE monitor GUMO1 represents both the Guadalupe Mountains NP and the Carlsbad Caverns NP Class I areas, and IMPROVE monitor WHPE1 represents both Wheeler Peak and Pecos Wilderness Areas Class I areas. IMPROVE monitors are part of a nationwide visibility monitoring network. The IMPROVE program establishes current visibility and aerosol conditions in mandatory Class I areas; identifies chemical species and emission sources responsible for existing man-made visibility impairment; documents long-term trends in visibility; and provides regional haze monitoring representing all visibility-protected Federal Class I areas, where practical.

[178] *See* 2009 Texas Regional Haze SIP Appendix 9–5, ''Screening Analysis of Potential BART-Eligible Sources in Texas''; Revised Draft Final Modeling Protocol Screening Analysis of Potentially BART-Eligible Sources in Texas, Environ Sept. 27, 2006; and Guidance for the Application of the CAMx Hybrid Photochemical Grid Model to Assess Visibility Impacts of Texas BART Sources at Class I Areas, Environ December 13, 2007 all available in the docket for this action. The EPA, the Texas Commission on Environmental Quality (TCEQ), and FLM representatives verbally approved the approach in 2006 and in email exchange with TCEQ representatives in February 2007 (*see* email from Erik Snyder (EPA) to Greg Nudd of TCEQ Feb. 13, 2007 and response email from Greg Nudd to Erik Snyder Feb. 15, 2007, available in the docket for this action).

[179] We approved Texas's subject-to-BART analysis for non-EGU sources which relied on this CAMx modeling in our January 5, 2016, rulemaking (81 FR 296).

[180] For this action, we used TCEQ's 2016 modeling platform from its Second Planning Period Regional Haze SIP revision. TCEQ submitted this Second Planning Period Regional Haze SIP revision to the EPA on July 20, 2021. The EPA has not reviewed this SIP nor proposed action on this SIP, but we are utilizing the modeling platform developed by TCEQ for this SIP to perform our modeling analyses to determine whether a source is subject to BART and in conducting the BART analysis for those sources determined to be subject to BART. The EPA will evaluate the Second Planning Period Regional Haze SIP submitted by TCEQ in a separate action. The SIP is available at *https://www.tceq.texas.gov/airquality/sip/bart/haze_sip.html* and in the docket for this action.

[181] Consequently, a 2016–2018 period for CALPUFF modeling and 2016–2020 emissions would be consistent with this choice.

different/new Particulate Matter Source Apportionment Technology (PSAT) [182] categories (individual EGU units and facilities) to track source contributions for BART-eligible units. These adjustments are explained in more detail in the 2023 BART Modeling TSD.

Using the BART Guidelines recommended maximum daily emissions and post-processing approach, if the source (which is the aggregate of all BART-eligible units at a specific facility) is shown to contribute less than 0.5 dv to visibility impairment at all modeled Class I areas on all modeled days, then it is said to be ''not subject to BART'' and may be excluded from further steps in the BART process. The maximum modeled impact for each source, taking into account the annual average natural background conditions at the Class I areas, was compared to the 0.5 dv contribution threshold. See the 2023 BART Modeling TSD for additional details on the CAMx modeling.

2. Subject to BART Determinations Based on CALPUFF and CAMx Modeling Results

Table 3 shows the CALPUFF modeling results for the screening analysis. The Graham, Newman, Stryker Creek, and Wilkes BART-eligible units (all gas-fired or gas/fuel oil-fired BART-eligible units) that were included in the Texas SO_2 Trading Program can be exempted from further analysis because they all have modeled maximum 98th percentile annual impacts at all Class I areas of less than the 0.5 dv threshold. When considering impacts modeled using CALPUFF, a source is considered subject to BART if any of the three annual 98th percentile values are 0.5 dv or greater. As Table 3 shows, the coal-fired BART-eligible units at Martin Lake, Harrington, and Welsh did not screen out based on the CALPUFF modeling and thus are considered to cause or contribute to visibility impairment at Class I areas. See the 2023 BART Modeling TSD for this action for more details on the CALPUFF modeling and the modeling results.

TABLE 3—CALPUFF BART SCREENING ANALYSIS

Plant name	Operator name	Boiler ID(s)	Most impacted class I area (distance)	Maximum delta deciviews			Less than 0.5 dv
				2016	2017	2018	
Graham	Luminant	2	Wichita Mountains (174 km)	0.297	0.203	0.423	Yes.
Newman	El Paso Electric	2, 3, **4, **5	Guadalupe Mountain (133 km)	0.342	0.368	0.354	Yes.
Stryker Creek	Luminant	ST2	Caney Creek (283 km)	0.054	0.059	0.064	Yes.
Wilkes Power Plant.	AEP	1, 2, 3	Caney Creek (174 km)	0.380	0.373	0.442	Yes.
Martin Lake	Luminant	1,2,3	Caney Creek (238 km)	3.28	3.60	3.35	No.
Harrington	Xcel	061B, 062B	Salt Creek (305 km)	0.49	0.59	0.54	No.
Harrington	Xcel	061B, 062B	Wichita Mountains (278 km)	0.54	0.45	0.58	No.
Welsh	AEP	1	Caney Creek (161 km)	0.7	0.94	0.96	No.

Table 4 summarizes the results of the CAMx screening analysis. These results also establish the baseline impacts for further modeling analyses of potential visibility benefits of controls. We note that all six sources analyzed with CAMx PSAT modeling had impacts greater than 0.5 dv at one or more Class I areas. Table 4 also shows that the CAMx-predicted visibility impacts range from 0.52 dv to 6.69 dv for these six sources at individual Class I areas on their maximum impact day. Additionally, Table 4 shows the number of days impacted over 0.5 dv and 1.0 dv at the maximum impacted Class I areas for each source. We note that maximum impacts from Fayette [183] are just above the 0.5 dv threshold and only exceed the threshold on one day. However, because the intent of the screening analysis is to be inclusive, we therefore consider Fayette subject to BART. The relatively lower visibility impacts and potential benefits from controls will be considered as part of the five-factor analysis when determining the potential availability of cost-effective emission reductions. With the exception of Fayette, the BART-eligible sources modeled using CAMx had maximum impacts well over the 0.5 dv threshold on multiple modeled days (ranging from 8 to 150 days).

TABLE 4—CAMX BART SCREENING SOURCE ANALYSIS SUMMARY

BART-eligible source	Units	Most impacted class I area	Maximum delta-dv	Less than 0.5 dv?	Number of modeled days ≥0.5 dv [1]	Number of modeled days ≥1.0 dv [1]
Coleto Creek	1	Caney Creek	1.55	No	18	2
Fayette Power	1 & 2	Caney Creek	0.52	No	1	0
Harrington	061B & 062B	White Mountain	2.64	No	8	3
Martin Lake	1, 2, & 3	Caney Creek	6.69	No	150	101
W. A. Parish	WAP4, WAP5, & WAP6.	Wichita Mountains	3.97	No	35	12
Welsh	1	Caney Creek	1.58	No	27	6

[1] Number of days over 0.5 or 1.0 dv at the most impacted Class I area. See Table 12 for cumulative results at the 15 Class I areas analyzed.

[182] CAMx includes an advanced mechanism that allows tracking the contributions of individual sources and pollutants within the grid model. For purposes of tracking particulate matter formation, we employed the CAMx PSAT for the BART-eligible sources included in the Texas SO_2 Trading Program, including the three coal-fired EGU sources that did not screen out with the CALPUFF modeling (Harrington, Martin Lake, and Welsh).

[183] Fayette Power Project is also known as Sam Seymour. We refer to it as Fayette throughout this document.

Based on the modeling analysis, the BART-eligible sources in Table 5 have been determined to cause or contribute to visibility impairment at a nearby Class I area; therefore, we propose to find the six sources are subject to BART. We must establish emission limits for visibility impairing pollutants SO_2 and PM through further evaluation using the BART five factor analysis.[184]

TABLE 5—SOURCES THAT ARE SUBJECT-TO-BART

Facility	Units
Coleto Creek	1.
Fayette Power	1 & 2.
Harrington	061B & 062B.
Martin Lake	1, 2 & 3.
W. A. Parish	WAP4, WAP5 & WAP6.
Welsh	1.

3. Subject to BART Determination for O.W. Sommers Units 1 and 2

CPS Energy operates the Calaveras Power Station which is comprised of O. W. Sommers Units 1 and 2, J. T. Deely Units 1 and 2,[185] and J. K. Spruce Units 1 and 2. In our 2017 Texas BART proposal, we identified O. W. Sommers Units 1 and 2 and J. T. Deely Units 1 and 2 as BART-eligible and conducted CAMx modeling to determine their visibility impacts. Because J. T. Deely Units 1 and 2 subsequently ceased operation and shut down, our analysis in this action is limited to the two gas-fired units at O. W. Sommers. Given the retirement of the two coal-fired units at J. T. Deely and the low SO_2 emissions from the O. W. Sommers gas-fired EGUs, rather than conducting new CAMx modeling, we updated our analysis of O. W. Sommers Units 1 and 2 relying on the CAMx modeling from our 2017 Texas BART proposal (further referred to as 2017 Proposal). In that analysis, we conducted CAMx modeling using the combined maximum 24-hour emissions from both J. T. Deely Units 1 and 2 and O. W. Sommers Units 1 and 2 to determine if the aggregate BART-eligible source (all four BART-eligible units at Calaveras Power Station) was subject to BART. The maximum modeled impact from the Calaveras Power Station was 1.513 dv. As documented in the BART Screening TSD and associated supporting documents for the 2017 BART FIP,[186] the impacts of the two O. W. Sommers BART-eligible units were previously estimated to have a maximum visibility impact of 0.286 dv at the Caney Creek Class I area, which is below the 0.5 dv threshold.[187]

To bolster our current analysis, we also compared the modeled SO_2 and NO_x emission rates from the O. W. Sommers units with the recent maximum daily emissions from 2016–2020. Sulfate and nitrate made up almost all of the extinction value on the maximum impact day at Caney Creek Class I area, with approximately 89 percent of the total extinction from nitrates and 9 percent from sulfates on the maximum impact day due to emissions from O. W. Sommers. Because the two O. W. Sommers BART-eligible units are located near each other and have similar stack parameters, we used a linear adjustment comparing emissions modeled previously to more recent emissions (2016–2020) to provide an estimate of current visibility impact. While linear scaling does not result in the same values as modeling, it is a reasonable methodology to conservatively approximate the visibility impact from a source.

Table 6 compares the NO_X and SO_2 emission rates modeled in the 2017 Proposal to the maximum daily emission rates of NO_X and SO_2 from the 2016–2020 period.[188] [189] We did not compare PM_{10} or $PM_{2.5}$ as they were less than 3 percent of the total light extinction on the maximum impact day. SO_2 emissions from the 2016–2020 period were less than 3 percent of what was previously modeled, and NO_X emissions were 13.71 percent higher than what was modeled for our 2017 Proposal for these two units. Acknowledging that the reduction in SO_2 emissions will result in lower visibility impact, we choose to not adjust for the lower SO_2 emissions in an effort to be conservative in our analysis. Scaling the 2017 visibility impact (0.286 dv at Caney Creek Class I area) linearly to account for the 13.71 percent total increase in NO_X emissions, we estimate a maximum visibility impact of 0.325 dv at the Caney Creek Class I area, which is well below the 0.5 dv threshold. Based on this analysis, it is reasonable to conclude that if emissions from the two O. W. Sommers BART-eligible units were remodeled using recent emissions, it would result in a maximum visibility impact less than 0.5 dv and would screen out of further analysis. Therefore, the EPA proposes that O. W. Sommers Units 1 and 2 are not subject to BART.

TABLE 6—O. W. SOMMERS BART-ELIGIBLE UNITS EMISSIONS MODELED IN 2017 VS. RECENT 2016–2020 EMISSIONS

	O. W. Sommers modeled in 2017 proposal (TPD)			O. W. Sommers max daily emissions 2016–2020 (TPD)			2016–2020 Total as percentage of 2017 modeled (%)
	Unit 1	Unit 2	Total	Unit 1	Unit 2	Total	
SO_2	2.01	10.92	12.93	0.167	0.147	0.31	2.43
NO_X	5.96	8.04	14.00	9.32	6.6	15.92	113.71

[184] The NO_X BART requirement for these EGU sources is not addressed by source-specific limits in this proposal. The EPA's determination that Texas' participation in CSAPR for ozone-season NO_X satisfies NO_X BART for EGUs was finalized in our October 17, 2017 final rule (82 FR 48324), thus dispensing with the need for source-specific BART determinations and requirements for NO_X. We did not reopen that determination in our August 2018 proposal, November 2019 supplemental proposal, or August 2020 final rule, and are not reopening it in this proposal.

[185] Acosta, Sarah (January 3, 2019). ''CPS Energy closes coal-fired Deely plant in operation since '70s to focus on cleaner energy sources''. KSAT–TV. Retrieved January 4, 2019.

[186] ''Technical Support Document Our Strategy for Assessing which Units are Subject to BART for the Texas Regional Haze BART Federal Implementation Plan (BART Screening TSD), pdf page 72 and Appendix E, available in the docket EPA–R06–OAR–2016–0611 (at EPA–R06–OAR–2016–0611–0005).

[187] Id. pdf page 72 and Appendix E. CAMx Maximum Impact at each Class Area; The O. W. Sommers BART-eligible units were modeled individually, the sum (maximum dv impacts) of which is 0.286 dv. Adding the maximum impacts of each unit results in a slight overestimation of the visibility impacts, since we did not first calculate total extinction and then dv, which is a natural logarithmic function. Therefore 0.286 dv is conservative (higher than if modeled).

[188] *Id.* Appendix A. Modeled parameters: Stack and emissions for CAMx modeled sources for modeled emissions in 2017 proposal.

[189] *https://campd.epa.gov/.*

B. BART Five Factor Analysis

The purpose of the BART analysis is to identify and evaluate the best system of continuous emission reduction based on the BART Guidelines.[190] In determining BART, a State, or the EPA when promulgating a FIP, must consider the five statutory factors in section 169A of the CAA: (1) The costs of compliance; (2) the energy and non-air quality environmental impacts of compliance; (3) any existing pollution control technology in use at the source; (4) the remaining useful life of the source; and (5) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. See also 40 CFR 51.308(e)(1)(ii)(A). This is commonly referred to as the ''BART five factor analysis.'' The BART Guidelines break the analyses of these requirements into five steps: [191]

STEP 1—Identify All Available Retrofit Control Technologies,

STEP 2—Eliminate Technically Infeasible Options,

STEP 3—Evaluate Control Effectiveness of Remaining Control Technologies,

STEP 4—Evaluate Impacts and Document the Results, and

STEP 5—Evaluate Visibility Impacts.

The following sections treat these steps individually for SO_2. We are combining these steps into one section in our assessment of PM BART that follows the SO_2 sections.

1. Step 1 and 2: Technically Feasible SO_2 Retrofit Controls

The BART Guidelines state that in identifying all available retrofit control options,

> [Y]ou must identify the most stringent option and a reasonable set of options for analysis that reflects a comprehensive list of available technologies. It is not necessary to list all permutations of available control levels that exist for a given technology—the list is complete if it includes the maximum level of control each technology is capable of achieving.[192]

Adhering to this, we will identify a reasonable set of SO_2 control options, including those that cover the maximum level of control each technology is capable of achieving. We will also note whether any of these technologies are technically infeasible.

The subject-to-BART units identified in Table 5 can be organized into three broad categories, based on their fuel type and the potential types of SO_2 control options that could be available: (1) coal-fired EGUs with no SO_2 scrubber, (2) coal-fired EGUs with existing SO_2 scrubbers, and (3) gas-fired EGUs that do not burn oil. This classification is represented in Table 7.

TABLE 7—FUEL/CONTROL TYPES FOR SUBJECT-TO-BART SOURCES

Facility	Unit	Coal (no scrubber)	Coal (existing scrubber)	Gas
Coleto Creek (Dynegy)	1	X		
Fayette (LCRA)	1		X	
Fayette (LCRA)	2		X	
Harrington Station (Xcel)	061B	X		
Harrington Station (Xcel)	062B	X		
Martin Lake (Luminant)	1		X	
Martin Lake (Luminant)	2		X	
Martin Lake (Luminant)	3		X	
W. A. Parish (NRG)	WAP4			X
W. A. Parish (NRG)	WAP5	X		
W. A. Parish (NRG)	WAP6	X		
Welsh Power Plant (AEP)	1	X		

For the coal-fired EGUs without an existing scrubber, we have identified four potential control technologies: (1) coal pretreatment, (2) Dry Sorbent Injection (DSI), (3) dry Flue Gas Desulfurization (FGD), and (4) wet FGD. For the coal-fired EGUs with existing scrubbers, we will examine whether those scrubbers can be upgraded.

Gas-fired EGUs that do not burn oil (W. A. Parish Unit WAP4) have inherently very low SO_2 emissions and there are no known SO_2 controls that can be evaluated.

a. Identification of Technically Feasible SO_2 Retrofit Control Technologies for Coal-Fired Units

Available SO_2 control technologies for coal-fired EGUs consist of either pretreating the coal in order to improve its qualities or by treating the flue gas through the installation of either DSI or some type of scrubbing technology.

Coal Pretreatment

Coal pretreatment, or coal upgrading, has the potential to reduce emissions by reducing the amount of coal that must be burned in order to result in the same heat input to the boiler. Coal pretreatment broadly falls into two categories: coal washing and coal drying.

Coal washing is often described as preparation (for particular markets) or cleaning (by reducing the amount of mineral matter and/or sulfur in the product coal).[193] Washing operations are carried out mainly on bituminous and anthracitic coals, as the characteristics of subbituminous coals and lignite (brown coals) do not lend themselves to separation of mineral matter by this means, except in a few cases.[194] Coal is mechanically sized, then various washing techniques are employed, depending on the particle size, type of coal, and the desired level of preparation.[195] Following the coal washing, the coal is dewatered, and the waste streams are disposed.

Coal washing takes place offsite at large dedicated coal washing facilities, typically located near where the coal is mined. Coal washing carries with it a number of problems:

- Coal washing is not typically performed on the types of coals used in

[190] *See* July 6, 2005 BART Guidelines, 40 CFR part 51, Regional Haze Regulations and Guidelines for Best Available Retrofit Technology Determinations.

[191] 70 FR 39104, 39164 (July 6, 2005) [40 CFR part 51, App. Y].

[192] 70 FR at 39164, fn 12 [40 CFR part 51, App. Y].

[193] Couch, G. R., ''Coal Upgrading to Reduce CO_2 emissions,'' CCC/67, October 2002, IEA Clean Coal Centre.

[194] *Id.*

[195] Various coal washing techniques are treated in detail in Chapter 4 of *Meeting Projected Coal Production Demands In The USA, Upstream Issues, Challenges, and Strategies,* The Virginia Center for Coal and Energy Research, Virginia Polytechnic Institute and State University, contracted for by the National Commission on Energy Policy, 2008.

the power plants under consideration, Powder River Basin (PRB) subbituminous and Texas lignites.

• Coal washing poses significant energy and non-air quality considerations under section 51.308(e)(1)(ii)(A). For instance, it results in the use of large quantities of water,[196] and coal washing slurries are typically stored in impoundments, which can, and have, leaked.[197]

Because of these issues, we do not consider coal washing as a part of our reasonable set of options for analysis as BART SO_2 control technology.

In general, coal drying consists of reducing the moisture content of lower rank coals, thereby improving the heating value of the coal and so reducing the amount of coal that has to be combusted to achieve the same power, thus improving the efficiency of the boiler. In the process, certain pollutants are reduced as a result of (1) mechanical separation of mineralized sulfur (*e.g.,* iron pyrite) and rocks, and (2) the unit burning less coal to make the same amount of power.

Coal drying could be considered a potential BART control. Great River Energy has developed a patented process which is being successfully utilized at the Coal Creek facility in North Dakota and is potentially available for installation at other facilities.[198] This process utilizes excess waste heat to run trains of moving fluidized bed dryers. The process offers a number of co-benefits, such as general savings due to lower coal usage (*e.g.,* coal cost, ash disposal), less power required to run mills and ID fans, and lower maintenance on coal handling equipment air preheaters, etc. Coal Creek units also utilize wet FGD to reduce SO_2 emissions. Therefore, the observed additional SO_2 emission reductions are due to the combination of a higher percentage of flue gas being scrubbed (decreased bypass of the wet FGD) in combination with a decrease in coal usage and any removal of sulfur in the drying process. We are not aware of any other EGUs in the United States that utilize coal drying for the purpose of reducing SO_2 emissions. Therefore, we believe coal drying has limited application at EGUs in the United States.

Although coal drying may be a potential option for generally improving boiler efficiency and obtaining some reduction in SO_2, its analysis presents a number of difficulties. For instance, the degree of reduction in SO_2 is dependent on several factors. These include (1) the quality and quantity of the waste heat available at the unit, (2) the type of coal being dried (amount of bound sulfur, *i.e.,* pyrites, moisture content), and (3) the design of the boiler (*e.g.,* limits to steam temperatures, which can decrease due to the reduced flue gas flow through the convective pass of the boiler). As a result of these issues, we do not further assess coal drying as part of our reasonable set of options for BART analysis.

DSI

DSI is not a stand-alone, add-on air pollution control system but a modification to the combustion unit or ductwork. DSI is performed by injecting a dry reagent into the hot flue gas, which chemically reacts with SO_2 and other gases to form a solid product that is subsequently captured by the particulate control device. A blower delivers the sorbent from its storage silos through piping directly to the flue gas ducting via injection lances. In general, there are many types of sorbent materials, but their efficacy is variable and dependent on operating conditions. Trona is currently the most commonly used sorbent for SO_2 removal and is a naturally occurring mineral primarily mined from the Green River Formation in Wyoming. Trona can also be processed into sodium bicarbonate, which is more reactive with SO_2 than trona, but more expensive. Hydrated lime is another potential sorbent that is more frequently used for acid gas control.[199] [200]

There are many examples of DSI being used on coal-fired EGUs. However, DSI may not be technically feasible at every coal-fired EGU. For example, DSI technology is not a technically feasible control option for boilers that burn fuels with sulfur content greater than 2 lb SO_2/MMBtu.[201] Although individual installations may present technical difficulties or poor performance due to the suboptimization of operational factors, we believe that DSI may be a particularly appropriate SO_2 control option for boilers that burn low-sulfur coal or lignite, as such boilers typically do not need SO_2 controls with very high control efficiencies (*i.e.,* greater than 95 percent) to achieve low emission rates. Because the Texas coal-fired EGUs we are evaluating in this proposal burn low-sulfur coal, we find that they are well suited for consideration of DSI for SO_2 control. Additionally, boilers that operate DSI and burn low-sulfur coal require much less sorbent than boilers burning high-sulfur coal to achieve similar control efficiencies. We also note that DSI is a common control technology that has been widely installed for compliance with the acid gas control requirements in the Mercury and Air Toxics Standards (MATS).[202] For these reasons, we find that DSI is technically feasible and should be considered as a potential BART control.

SO_2 Scrubbing Systems

In contrast to DSI, SO_2 scrubbing techniques utilize a large, dedicated vessel in which the chemical reaction between the sorbent (typically lime or limestone) and SO_2 takes place either completely or in large part. Also, in contrast to DSI systems, SO_2 scrubbers add water to the sorbent when introduced to the flue gas. The two predominant types of SO_2 scrubbing employed at coal-fired EGUs are wet FGD and dry FGD. The U.S. Energy Information Administration (EIA) reports[203] the following types of flue

[196] ''Water requirements for coal washing are quite variable, with estimates of roughly 20 to 40 gallons per ton of coal washed (1 to 2 gal per MMBtu) (Gleick, 1994; Lancet, 1993).'' Energy Demands on Water Resources, Report to Congress on the Interdependency of Energy and Water, U.S. Department of Energy, December 2006.

[197] Committee on Coal Waste Impoundments, Committee on Earth Resources, Board on Earth Sciences and Resources, Division on Earth and Life Studies; *Coal Waste Impoundments, Risks, Responses, and Alternatives;* National Research Council; National Academy Press, 2002.

[198] DryFining™ is the company's name for the process. It is described here: *https://www.powermag.com/improve-plant-efficiency-and-reduce-co2-emissions-when-firing-high-moisture-coals/.*

[199] *See* Documentation for the EPA's Power Sector Modeling Platform v6 Using the Integrated Planning Model, dated September 2021, page 5–19. Documentation for v.6 downloaded from *https://www.epa.gov/power-sector-modeling/documentation-epas-power-sector-modeling-platform-v6-summer-2021-reference.*

[200] ''Dry Sorbent Injection of Sodium Sorbents,'' presented at the LADCO Lake Michigan Air Directors Consortium, Emission Control and Measurement Technology for Industrial Sources Workshop, March 24, 2010. A copy of the presentation is located in the docket at EPA–R06–OAR–2016–0611–0043.

[201] IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy, page 3. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–5: DSI Cost Methodology, downloaded from *https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-5_dsi_cost_development_methodology.pdf.*

[202] The MATS rule was finalized by the EPA in December 2011, and compliance with the standard was required by 2015. The MATS rule requires that plants greater than 25 megawatts meet the maximum achievable control technology for mercury, hydrochloric acid, and filterable particulate matter (note the MATS rule does not require controls for SO_2). *See https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.*

[203] *See* EIA–860 data available here: *https://www.eia.gov/electricity/data/eia860/.*

gas desulfurization systems as being operational in the U.S. for 2020:

TABLE 8—EIA REPORTED DESULFURIZATION SYSTEMS IN 2020

Type	Number of installations
Wet spray tower scrubber	288
Spray dryer absorber	256
Circulating dry scrubber	41
Packed tower wet scrubber	4
Venturi wet scrubber	58
Jet bubbling reactor	23
Tray tower wet scrubber	63
Mechanically aided wet scrubber	4
DSI	149
Other	36
Unspecified	0
Total	922

Excluding the DSI installations,[204] EIA lists 773 SO_2 scrubber installations in operation in 2020. Of these, 288 are listed as being spray type wet scrubbers, with an additional 63 listed as being tray type wet scrubbers.[205] An additional 256 are listed as being spray dry absorber (SDA) scrubbers, which are a type of dry FGD. Consequently, spray type or tray type wet scrubbers (wet FGD) account for approximately 45 percent of all scrubber systems, and SDA accounts for approximately 33 percent of all scrubber systems that were operational in the U.S. in 2020.

We consider some of the other scrubber system types (*e.g.,* venturi and packed wet scrubber types) to be older, outdated technologies (that are not existing controls or factor into considerations regarding existing controls) and therefore will not be considered in our BART analysis. Circulating dry scrubbers (CDS) is another type of dry scrubbing system that can achieve high removal efficiencies but has seen more limited use in the United States compared to SDA.[206] Based on available data, CDS systems have installed costs that are comparable to SDA systems even though there are differences in design.[207] CDS systems may be capable of achieving a slightly higher control efficiency than SDA, but based on 2019 data for coal-fired units at power plants, the 12-month average emission rate for the top performing 50 percent FGD systems is 0.06 lb/MMBtu for SDA systems and 0.12 lb/MMBtu for CDS systems.[208]

The BART Guidelines explain that:

A possible outcome of the BART procedures discussed in these guidelines is the evaluation of multiple control technology alternatives which result in essentially equivalent emissions. It is not our intent to encourage evaluation of unnecessarily large numbers of control alternatives for every emissions unit. Consequently, you should use judgment in deciding on those alternatives for which you will conduct the detailed impacts analysis (Step 4 below).[209]

We believe that evaluation of SDA and wet FGD covers a reasonable range of control efficiencies offered by available SO_2 scrubbing technologies and includes the most stringent control option available.[210] CDS will not be further considered as part of our reasonable set of options for analysis for BART controls given the similarity in cost and removal efficiencies with SDA. However, CDS could potentially be considered as an alternative dry scrubber control to SDA. We therefore solicit comment regarding costs and control efficiency of CDS, including comments from the facilities we evaluated for SO_2 scrubbers on whether they have conducted analysis of CDS, the level of SO_2 control efficiency that could be achieved with installation of CDS at the unit, and the estimated cost of that control technology at the unit.

Wet FGD and SDA installations account for approximately 79 percent of all scrubber installations in the U.S. and as such constitute a reasonable set of SO_2 scrubber control options. The vast majority of the wet FGD and SDA installations utilize limestone and lime, respectively as reagents. In addition, these technologies cover the maximum level of SO_2 control available. As described above, these controls are in wide use and have been retrofitted to a variety of boiler types and plant configurations. Based on typical SDA performance, SDA scrubbers should not be applied to boilers that burn fuels with more than 3 lb SO_2/MMBtu.[211] Typically, SDA technology has been applied to boilers that burn fuels with less than 2 lb/MMBtu. The Texas coal-fired EGUs we are evaluating in our BART analyses burn low sulfur coal and are suitable for evaluation of both SDA and wet FGD. We see no technical infeasibility issues and believe that limestone wet FGD and lime SDA should be considered as potential BART controls for all unscrubbed coal-fired subject to BART units. However, due to potential non-air quality concerns associated with water availability, we limit our SO_2 control analysis for Harrington Units 061B and 062B to DSI and SDA. This is discussed in more detail in Section VII.B.3.

b. Identification of Technically Feasible SO_2 Control Technologies for Scrubber Upgrades

In our 2016 Texas-Oklahoma FIP,[212] we presented a great deal of information on which we reached a conclusion that the existing scrubbers for a number of facilities could be very cost-effectively upgraded.[213] While that action was stayed by the Fifth Circuit, the basis for the stay was not related to that technical analysis. This information remains valid and can be used to inform our BART analysis in this proposal. Therefore, we have included this information in the record for this proposal in Appendix A

[204] As discussed in this section, DSI is more commonly installed for compliance with the acid gas control requirements for MATS, not for meeting SO reduction requirements.

[205] Trays are often employed in spray type wet scrubbers and EIA lists some of the wet spray tower systems as secondarily including trays.

[206] *See* the EPA Air Pollution Control Cost Manual, Seventh Edition (April 2021), Section 5, Chapter 1, page 1–44. The EPA Air Pollution Control Cost Manual is available at *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual.* The EPA is currently in the process of updating the Control Cost Manual and this update will be the Seventh Edition. Although updates are not yet complete for all sections the EPA intends to update in the Seventh Edition, updated Section 5, Chapter 1, which is titled ''Wet and Dry Scrubbers for Acid Gas Control,'' is now available and is part of the Seventh Edition of the Control Cost Manual.

[207] *See* Control Cost Manual, Wet and Dry Scrubbers for Acid Gas Control Response to Comment Document, pg 32. Available at *chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.epa.gov/sites/default/files/2021-05/documents/rtcdocument_wet_and_dry_scrubbers_controlcostmanual_7thedition.pdf* and in the docket for this action.

[208] The EPA Air Pollution Control Cost Manual (the Control Cost Manual, or Manual), Seventh Edition (April 2021), Section 5, Chapter 1 titled ''Wet and Dry Scrubbers for Acid Gas Control,'' page 1–12. The Control Cost Manual can be found at *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual.*

[209] See 40 CFR part 51, Appendix Y—Guidelines For BART Determinations Under the Regional Haze Rule, Section IV.D.2.

[210] The EPA Air Pollution Control Cost Manual (the Control Cost Manual, or Manual), Seventh Edition (April 2021), Section 5, Chapter 1 titled ''Wet and Dry Scrubbers for Acid Gas Control'' provides data summarizing the efficiency and SO_2 emission rates for SO_2 scrubbers based on 2019 data for coal-fired units at power plants. The 12-month average emission rate for the top performing 50 percent FGD systems is 0.04 lb/MMBtu for limestone wet FGD systems, 0.06 lb/MMBtu for SDA systems, and 0.12 lb/MMBtu for CDS systems. (See page 1–12). The Control Cost Manual can be found at *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual.*

[211] IPM Model—Updates to Cost and Performance for APC Technologies, SDA FGD Cost Development Methodology, Final January 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy, p. 2.

[212] 81 FR 296, 321 (Jan. 5, 2016).

[213] *See* information presented in Sections 6 and 7 of the 2016 Texas-Oklahoma FIP Cost TSD, Document No. EPA–R06–OAR–2014–0754–0008, available at *www.regulations.gov.*

of the 2023 BART FIP TSD in the docket.[214] Appendix A also contains a comprehensive survey we prepared as part of our 2016 Texas-Oklahoma FIP of available literature concerning the kinds of upgrades that have been performed by industry on scrubber systems similar to the ones installed on the units included in this proposal. We then reviewed all information we had at our disposal regarding the status of the existing scrubbers for each unit, including any upgrades the facility may have already installed. We finished by calculating the cost-effectiveness of scrubber upgrades, using the facility's own information, obtained as a result of our previous CAA section 114 collection efforts. The companies that supplied this information have asserted a Confidential Business Information (CBI) claim for much of it, as provided in 40 CFR 2.203(b). We therefore redacted any CBI information we utilized in our analyses, or otherwise disguised it so that it cannot be traced back to its specific source. Based on our review of this information, we find that upgrades to the existing scrubbers should be considered as potential BART controls for the three subject-to-BART units at the Martin Lake facility.

The Fayette Units 1 and 2 are currently equipped with high performing wet FGDs. Both units have demonstrated the ability to maintain a SO_2 30 Boiler Operating Day (BOD) average below 0.04 lb/MMBtu for years at a time.[215] As we discuss in Section VII.B.2.a, we state that retrofit wet FGDs should be evaluated at 98 percent control not to go below 0.04 lb/MMBtu. Because the Fayette units are already performing at this level, we do not evaluate any additional scrubber upgrades for these two units. Thus, our SO_2 BART analysis in this proposed rulemaking evaluates scrubber upgrades as potential BART controls only for Martin Lake Units 1, 2, and 3.

c. Identification of Technically Feasible SO_2 Control Technologies for Gas Fired Units

Based on our subject to BART screening analysis, W. A. Parish Unit WAP4 is the only gas-fired unit we determined to be subject to BART. Because the BART screening analysis is done on a facility-wide basis, Unit WAP4 is only subject to BART because it is collocated with two BART-eligible coal-fired units. Gas-fired EGUs have inherently low SO_2 emissions[216] and there are no known SO_2 controls that can be evaluated. While we must assign SO_2 BART determinations to the gas-fired unit, there are no practical add-on controls to consider for setting a more stringent BART emission limit. The Guidelines state that if the most stringent controls are made federally enforceable for BART, then the otherwise required analyses leading up to the BART determination can be skipped.[217] As there are no appropriate add-on controls and the status quo reflects the most stringent control level, we are proposing that SO_2 BART for W. A. Parish Unit WAP4 is to limit fuel to pipeline natural gas, as defined at 40 CFR 72.2.[218]

2. Step 3: Evaluation of Control Effectiveness

In the following subsections, we evaluate the control levels each technically feasible technology can achieve for the coal units. In so doing, we consider the maximum level of control each technology is capable of delivering based on a 30 BOD period. As the BART Guidelines direct, ''[y]ou should consider a boiler operating day to be any 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time at the steam generating unit.'' [219] To calculate a 30-day rolling average based on BOD, the average of the last 30 ''boiler operating days'' is used. In other words, days are skipped when the unit is down, as for maintenance.

a. Evaluation of SO_2 Control Effectiveness for Coal-Fired Units Without an Existing Scrubber

Control Effectiveness of DSI

DSI involves pneumatically injecting a sorbent either directly into a coal-fired boiler or into ducting downstream of where the coal is combusted. The sorbent interacts with various pollutants in the flue gas, including SO_2 and acid gases such as hydrochloric acid (HCl), such that a fraction of these pollutants are removed from the gas stream. After the appropriate chemical interactions between the sorbent and the pollutants in the flue gas, the dry waste product of the reaction is removed using a particulate control device, typically a fabric filter baghouse or electrostatic precipitator (ESP). The SO_2 removal efficiency of DSI varies greatly but is highly dependent on the following factors: the type of sorbent used; the careful balancing of the stoichiometry of the molecules in the sorbent (sodium in the case of trona or sodium bicarbonate, or calcium in the case of hydrated lime) and SO_2 molecules in the flue gas; and the type of particulate capture device used in conjunction with the sorbent injection. Removal efficiency can also be improved by increasing the surface area of the sorbent to increase reactivity with the SO_2 gas. This can be achieved by crushing or ''milling'' the sorbent and also by applying heat. Both the application of heat and milling the sorbent increase the efficiency of the DSI system, but also increase the cost.[220]

The most common sodium-based sorbents used in DSI systems are trona and sodium bicarbonate. Sodium bicarbonate is more effective in removing SO_2 emissions than trona,[221] and therefore, less sodium bicarbonate is needed for an equivalent amount of SO_2 removal compared to trona. However, sodium bicarbonate is more expensive than trona on a per ton basis. Hydrated lime is a calcium-based sorbent that is also used in DSI systems. DSI using hydrated lime typically achieves a lower SO_2 removal efficiency compared to DSI using trona. Aside from the lower SO_2 removal efficiency typically seen with hydrated lime, we also note that DSI using hydrated lime as the sorbent may necessitate the use of a baghouse rather than an ESP as the particulate capture device, which would increase costs if a unit does not already have an existing baghouse. Because trona is generally considered the most cost-effective of the DSI sorbents for SO_2 removal and considering the limitations associated with hydrated lime for SO_2 removal, our DSI analysis is based on using milled trona as the sorbent.[222]

[214] *See* our 2023 BART FIP TSD, Appendix A, ''Wet FGD Scrubber Upgrade Control Analysis as used in the Texas-Oklahoma FIP.''

[215] *See* our 2023 BART FIP TSD for additional information and graphs of this data.

[216] AP 42, Fifth Edition, Volume 1, Chapter 1: External Sources, Section 1.4, Natural Gas Combustion, available here: *https://www3.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf.*

[217] 70 FR at 39165 (''. . . you may skip the remaining analyses in this section, including the visibility analysis . . .'').

[218] As provided for in 40 CFR 72.2, pipeline natural gas contains 0.5 grains or less of total sulfur per 100 standard cubic feet. This is equivalent to an SO_2 emission rate of 0.0006 lb/MMBtu.

[219] 70 FR 39103, 39172 (July 6, 2005), [40 CFR part 51, App. Y].

[220] IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy.

[221] Sodium bicarbonate may be able to achieve even higher SO_2 removal efficiencies compared to trona. However, the April 2017 IPM DSI documentation and associated 2019 Retrofit Cost Analyzer (RCA) tool cost spreadsheet do not include information on sodium bicarbonate costs and removal efficiencies.

[222] As discussed in the preceding paragraph, the removal efficiency of trona can be improved by crushing or ''milling'' the sorbent, which increases the reactivity with the SO_2 gas. The control

In developing our BART analysis for DSI, we relied on the EPA's April 2017 version of the Integrated Planning Model (IPM) DSI documentation [223] [224] and the 2019 version of the EPA's Retrofit Cost Analyzer (RCA), which is an Excel-based tool that can be used to estimate the cost of building and operating air pollution controls and also employs version 6 of our IPM model.[225] We expect that by the time this proposal is published in the **Federal Register**, or shortly thereafter, the EPA will have issued an updated version of the IPM DSI documentation and an accompanying updated version of the RCA tool for calculating the cost of DSI. The updated IPM DSI documentation and updated RCA tool for DSI include a number of updates to the cost algorithms and updated estimates for sorbent costs. Initial review of the updated DSI documentation indicates the maximum potential SO_2 control efficiencies of DSI may be higher than indicated in the April 2017 version of the IPM DSI documentation. The updated DSI documentation and RCA tool also include updated cost algorithms predicting the amount of sorbent required to achieve certain control efficiencies that generally result in similar cost effectiveness values ($/ton) for DSI using milled trona compared to the cost algorithms used in the April 2017 version of the IPM DSI documentation and the 2019 version of the RCA tool. This is the result of the updated efficiency curves estimating lower sorbent use and updated higher costs for milled trona. The updated RCA tool contains cost information for sodium bicarbonate and the capability to estimate the cost of DSI using sodium bicarbonate as the sorbent. In general, the cost-effectiveness values for DSI using milled trona and sodium bicarbonate appear to be very similar. Less sodium bicarbonate is needed than milled trona to achieve a given control efficiency but the cost per ton of sodium bicarbonate is higher compared to milled trona, thereby resulting in similar cost-effectiveness values. However, the updated IPM DSI documentation indicates that sodium bicarbonate may be able to achieve higher control efficiencies compared to milled trona. We will include these documents in the docket once they are finalized and made publicly available. As these updated documents were not available at the time we developed our cost analysis, we did not rely on this updated information in our DSI cost analysis presented in this proposal. In general, the updated IPM DSI documentation and updated RCA tool for DSI suggest that DSI could potentially achieve higher SO_2 control efficiencies at a similar cost per SO_2 tons removed. However, as described in further detail below, absent site-specific information from the facilities that we evaluated for DSI, we believe there is uncertainty whether these units are capable of achieving the assumed maximum DSI performance levels specified in either the April 2017 IPM DSI documentation or the updated version of the IPM DSI documentation. Similarly, we believe that our concern regarding the uncertainty in the cost estimates for DSI at high SO_2 removal levels would still exist even if we were to rely on the updated versions of the IPM DSI documentation and the RCA tool.[226] However, as we discuss later in this subsection, we solicit comment on the range and maximum control efficiency that can be achieved with DSI at the evaluated units and estimates of the range of associated costs. We are especially interested in any site-specific analysis of DSI for the units we evaluated, the level of SO_2 control efficiency that could be achieved with installation of DSI at these units, and the estimated cost of that control technology at these units.

According to the April 2017 IPM DSI documentation, the assumed maximum DSI performance level using milled trona is 80 percent SO_2 removal for an Electrostatic Precipitator (ESP) installation and 90 percent SO_2 removal for a baghouse installation.[227] The BART Guidelines state the following regarding selection of an emissions performance level or levels to evaluate in a BART analysis for a control option with a wide range of emission performance levels:

> It is not our intent to require analysis of each possible level of efficiency for a control technique as such an analysis would result in a large number of options. It is important, however, that in analyzing the technology you take into account the most stringent emission control level that the technology is capable of achieving. You should consider recent regulatory decisions and performance data (*e.g.,* manufacturer's data, engineering estimates and the experience of other sources) when identifying an emissions performance level or levels to evaluate.[228]

Adhering to this, we are evaluating each unit at its assumed maximum achievable DSI performance level according to the April 2017 IPM DSI documentation. All the units we are evaluating for DSI controls have existing baghouses with the exception of Harrington Unit 061B, which has an ESP. For Coleto Creek Unit 1 and W. A. Parish Units WAP5 and WAP6, we are evaluating DSI at 90 percent SO_2 removal. For Welsh Unit 1 and Harrington Unit 062B, we are limiting the upper DSI control to their equivalent SDA control efficiencies of 87 percent and 89 percent, respectively. For Harrington Unit 061B, the only unit with an existing ESP, we are evaluating DSI at 80 percent SO_2 removal.

We recognize that there is some variation based on facility-specific circumstances which could affect whether a given unit is actually capable of achieving these assumed maximum performance levels. There is typically a direct correlation with DSI between the targeted SO_2 removal efficiency and the amount of sorbent needed; therefore, more sorbent is needed to reach higher SO_2 removal efficiencies. However, the reaction between the sorbent and the various pollutants in the flue gas results in a dry waste product that must be removed using a particulate control device. As additional sorbent is added to achieve higher SO_2 removal efficiencies, the increased dry waste product can impact the performance of the particulate control device. For instance, DSI using trona and an ESP for capture of the dry waste product typically can achieve 40–50 percent SO_2 removal efficiency without an increase in particulate emissions.[229] At higher

efficiencies we evaluate for DSI and our cost analysis is based on the use of milled trona.

[223] *See* Documentation for the EPA's Power Sector Modeling Platform v6 Using the Integrated Planning Model, dated September 2021. Documentation for v.6 downloaded from *https://www.epa.gov/power-sector-modeling/documentation-epas-power-sector-modeling-platform-v6-summer-2021-reference.*

[224] IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent &Lundy. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–5: DSI Cost Methodology, downloaded from *https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-5_dsi_cost_development_methodology.pdf.*

[225] Retrofit Cost Analyzer, rev: 06–04–2019, downloaded from *https://www.epa.gov/power-sector-modeling/retrofit-cost-analyzer.*

[226] We discuss these issues in more detail in Sections VII.B.3.a and VIII.A.

[227] IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–5: DSI Cost Methodology, downloaded from *https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-5_dsi_cost_development_methodology.pdf.*

[228] *See* 40 CFR Part 51, Appendix Y—Guidelines For BART Determinations Under the Regional Haze Rule, Section IV.D.3.

[229] IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for

Continued

SO_2 removal efficiencies, however, depending on the throughput capacity, an ESP may not be able to handle the increased dry waste product. Similar issues exist where DSI is used with a fabric filter for capture of the dry waste product. The increased dry waste product produced in trying to achieve high SO_2 removal efficiencies would result in the more rapid formation of baghouse filter cake, which is the mixture of fly ash and sorbent-SO_2 reaction product. This would result in the need for more frequent cleaning, more rapid filter bag wear, and more frequent replacement of filter bags. The frequent need to clean and replace the filter bags may become impractical and additional fabric filter compartments may need to be added to handle the high loading that occurs at high SO_2 removal efficiencies. The exact SO_2 removal efficiency at which these secondary impacts would become significant is typically site-specific. As we discuss in Section VII.B.3.a, these secondary impacts associated with trying to achieve higher SO_2 removal efficiencies also lead to some uncertainty in our cost estimates for DSI at high SO_2 removal efficiencies.

Site-specific information based on individual performance testing is typically needed to be able to accurately determine the maximum DSI SO_2 removal efficiency for a particular unit. We do not have this site-specific information and testing for the individual units that we are evaluating for DSI. Instead, we analyzed publicly available 2017–2021 data for coal-fired EGUs with existing DSI systems and estimated the monthly average SO_2 removal efficiency of existing DSI systems by utilizing the reported sulfur content and tonnages of the fuels burned and reported to EIA [230] and the monitored SO_2 outlet emissions reported to the EPA.[231] Based on our analysis, we found that there is a large range of SO_2 removal efficiency at the coal-fired EGUs with existing DSI for which there is publicly available data. However, unless there is a specific regulatory requirement to meet a low SO_2 emissions rate, DSI installations are often not optimized to achieve the highest possible SO_2 control efficiency. Of particular interest for this BART analysis, there are existing coal-fired DSI units that are consistently achieving high monthly average SO_2 removal efficiencies in the 70–90 percent range. We discuss this analysis in further detail in our 2023 BART FIP TSD in the docket. However, because we could only identify a few cases where units are consistently achieving greater than 70 percent SO_2 control efficiency and, most importantly, because we do not have the site-specific information and individual performance testing needed to accurately determine the maximum DSI SO_2 removal efficiency for a particular unit, we do not know whether the EGUs we are evaluating in this proposal are capable of achieving the assumed maximum DSI performance levels specified in the April 2017 IPM DSI documentation or what level of control should be considered the maximum achievable level for these units.

Recognizing that DSI has a wide range of SO_2 removal efficiencies, that there is some variation based on facility-specific circumstances which could affect whether a given unit is actually capable of achieving the assumed maximum achievable control levels outlined in the April 2017 IPM DSI documentation, and because we believe it is useful to evaluate lesser levels of DSI control to provide a range of costs, we will also evaluate these units at a DSI SO_2 control level that can likely be achieved by most coal-fired units. DSI using trona and an ESP for particulate capture can typically remove 40–50 percent of SO_2 without affecting the performance of the particulate control device.[232] Therefore, we believe 50 percent SO_2 removal is a conservatively low DSI control efficiency that any given coal-fired EGU is likely capable of achieving without requiring high sorbent injection rates that may negatively impact the particulate control. This approach is consistent with the BART Guidelines, which state the following:

> You may encounter cases where you may wish to evaluate other levels of control in addition to the most stringent level for a given device. While you must consider the most stringent level as one of the control options, you may consider less stringent levels of control as additional options. This would be useful, particularly in cases where the selection of additional options would have widely varying costs and other impacts.[233]

We invite comments on the range and maximum control efficiency that can be achieved with DSI at the evaluated units. We are especially interested in any site-specific DSI testing for the units we evaluated to determine the range and maximum control efficiency that can be achieved at those units. Any data to support the range and maximum control efficiency for a particular unit should be submitted along with those comments. We will further consider DSI site-specific information provided to us during the public comment period in making our final decision and potentially re-evaluate DSI and the control efficiency for one or more particular units.

Control Effectiveness of Wet FGD and SDA

We have assumed a wet FGD level of control to be a maximum of 98 percent not to go below 0.04 lb/MMBtu, in which case, we assume the percentage of control equal to 0.04 lb/MMBtu. As we discuss later in this proposal, we conducted our wet FGD control cost analysis using the EPA's ''Air Pollution Control Cost Estimation Spreadsheet For Wet and Dry Scrubbers for Acid Gas Control,'' [234] which employs version 6 of our IPM model.[235] The IPM wet FGD

SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–5: DSI Cost Methodology, p. 3; downloaded from *https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-5_dsi_cost_development_methodology.pdf.*

[230] EIA Form 923. Available at *https://www.eia.gov/electricity/data/eia923/.*

[231] EPA Air Markets and Programs Data. Available at *https://campd.epa.gov/.*

[232] IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–5: DSI Cost Methodology, p. 3; downloaded from *https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-5_dsi_cost_development_methodology.pdf.*

[233] *See* 40 CFR part 51, appendix Y—Guidelines For BART Determinations Under the Regional Haze Rule, Section IV.D.3.

[234] Air Pollution Control Cost Estimation Spreadsheet For Wet and Dry Scrubbers for Acid Gas Control, U.S. Environmental Protection Agency, Air Economics Group, Health and Environmental Impacts Division, Office of Air Quality Planning and Standards (January 2023), downloaded from *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution.*

[235] *See* Documentation for the EPA's Power Sector Modeling Platform v6 Using the Integrated Planning Model, dated September 2021. Documentation for v.6 downloaded from *https://www.epa.gov/power-sector-modeling/documentation-epas-power-sector-modeling-platform-v6-summer-2021-reference.*

IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–5: DSI Cost Methodology, downloaded from *https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-5_dsi_cost_development_methodology.pdf.*

IPM Model—Updates to Cost and Performance for APC Technologies, SDA FGD Cost Development Methodology, Final January 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–2: SDA FGD Cost Methodology, downloaded from *https://www.epa.gov/sites/default/files/2018-05/*

Documentation states: ''The least-squares curve fit of the data was defined as a ''typical'' wet FGD retrofit for removal of 98 percent of the inlet sulfur. It should be noted that the lowest available SO_2 emission guarantees, from the original equipment manufacturers of wet FGD systems, are 0.04 lb/MMBtu.'' [236] The most recent version of the EPA Air Pollution Control Cost Manual (the Control Cost Manual, or Manual) section on Wet and Dry Scrubbers for Acid Gas Control [237] provides data summarizing the efficiency and SO_2 emission rates for SO_2 scrubbers based on 2019 data for coal-fired units at power plants. The 12-month average emission rate for the top performing 50 percent of wet limestone FGD systems is 0.04 lb/MMBtu.[238]

Assuming a wet FGD level of control to be a maximum of 98 percent not to go below 0.04 lb/MMBtu is also consistent with our determination in the 2011 Oklahoma FIP.[239] Issues that have been raised in the past concerning these conclusions are discussed further in Appendix A of the 2023 BART FIP TSD in the docket. Elsewhere in this notice and in the 2023 BART FIP TSD, we discuss the performance of the wet FGD on Fayette Units 1 and 2 as an example of units with emission rates consistent with our assumption of 0.04 lb/MMBtu with this control technology. We propose that this level of control for wet FGD is reasonable.

In evaluating the control effectiveness for SDA, the Control Cost Manual identifies the 12-month average emission rate for the top performing 50 percent of SDA systems as 0.06 lb/MMBtu.[240] As with our Oklahoma FIP, we have assumed an SDA level of control equal to 95 percent, unless that level of control would fall below an outlet SO_2 level of 0.06 lb/MMBtu, in which case, we assume the percentage of control equal to 0.06 lb/MMBtu.[241] In that Oklahoma FIP, we finalized the same emission limit of 0.06 lb/MMBtu on a 30 BOD average for six coal-fired EGUs in Oklahoma. We justified those limits based on the same SDA technology, using a combination of industry publications and real-world monitoring data. Much of the information in support of our position that an emission limit of 0.06 lb/MMBtu on a 30 BOD average is within the demonstrated capabilities of SDA retrofits is summarized in our response to comments document for the Oklahoma FIP [242] and in our 2023 BART FIP TSD. We propose that this level of control for SDA is reasonable.

b. Evaluation of SO_2 Control Effectiveness for Coal-fired Units With Existing Scrubbers

Control Effectiveness of Upgrades to Existing Scrubbers

Of the units we are proposing to determine are subject to BART, Martin Lake Units 1, 2, and 3 are currently equipped with wet FGDs that are not high-performing. Based on information we received from the facility, which we obtained in response to our previous CAA Section 114(a) information collection request, we find that upgrades to the existing scrubbers should be considered as potential BART controls for these Martin Lake units. Because the company asserted a CBI claim for much of the information supplied to us, as provided in 40 CFR 2.203(b), we are limited in what information we can include in this section. The following summary is based on information not claimed as CBI.

- The absorber system could be upgraded to perform at an SO_2 removal efficiency of at least 95 percent using proven equipment and techniques.
- The SO_2 scrubber bypass could be eliminated, and the additional flue gas could be treated by the absorber system with at least a 95 percent removal efficiency.
- Additional modifications necessary to eliminate the bypass could be performed using proven equipment and techniques.
- The additional SO_2 emission reductions resulting from the scrubber upgrade would be substantial.

Given that we lack Continuous Emissions Monitoring Systems (CEMS) data for the inlet of the scrubbers and only have CEMS data for the outlet of the scrubbers, we calculated the current removal efficiency of each scrubber by utilizing the reported sulfur content and tonnages of the fuels burned and reported to EIA [243] and the monitored SO_2 scrubber outlet emissions reported to the EPA.[244] Our approach for estimating the current removal efficiency of the existing scrubbers is discussed in greater detail in our 2023 BART FIP TSD in the docket. Based on emissions rate data and reported sulfur content and tonnages of the fuels burned in 2016—2020, we have estimated that the current removal efficiency of the existing scrubbers at the Martin Lake units is approximately 64 percent at Unit 1, 66 percent at Unit 2, and 64 percent at Unit 3.[245] We find that an assumption that upgrades to the existing scrubbers can increase their control efficiency to 95 percent at Martin Lake Units 1, 2, and 3 is reasonable. This is below the upper end of what an upgraded wet SO_2 scrubber can achieve, which is 98–99 percent, as we have noted in the 2023 BART FIP TSD in the docket. We believe that a 95 percent control assumption provides an adequate margin of error, such that the Martin Lake units would be able to comfortably achieve this removal efficiency. Based on the reported sulfur content and tonnages of the fuels

documents/attachment_5-2_sda_fgd_cost_development_methodology.pdf.

IPM Model—Updates to Cost and Performance for APC Technologies, Wet FGD Cost Development Methodology, Final January 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–1: Wet FGD Cost Methodology, downloaded from *https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-1_wet_fgd_cost_development_methodology.pdf.*

[236] IPM Model—Updates to Cost and Performance for APC Technologies, Wet FGD Cost Development Methodology, Final January 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy, p. 2.

[237] EPA Air Pollution Control Cost Manual, Seventh Edition, April 2021 available at *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual.* The EPA is currently in the process of updating the Control Cost Manual and this update will be the Seventh Edition. Although updates are not yet complete for all sections the EPA intends to update in the Seventh Edition, updated Section 5, Chapter 1, which is titled ''Wet and Dry Scrubbers for Acid Gas Control,'' is now available and is part of the Seventh Edition of the Control Cost Manual.

[238] These observed overall SO_2 emission rates are likely attributable to a variety of factors including improvements in the design and operation of FGD systems and operational changes at some utilities from switching to lower sulfur coal and operating at less than full capacity. EPA Air Pollution Control Cost Manual, Seventh Edition, April 2021, Section 5, Chapter 1, p 1–12.

[239] As discussed previously in our TSD for that action, control efficiencies reasonably achievable by dry scrubbing and wet scrubbing were determined to be 95 percent and 98 percent respectively. 76 FR 81728, 81742 (2011); *Oklahoma* v. *EPA,* 723 F.3d 1201 (July 19, 2013), cert. denied (U.S. May 27, 2014). This level of control was also employed in our Texas-Oklahoma FIP. *See* 81 FR at 321.

[240] These observed overall SO_2 emission rates are likely attributable to a variety of factors including improvements in the design and operation of FGD systems and operational changes at some utilities from switching to lower sulfur coal and operating at less than full capacity. EPA Air Pollution Control Cost Manual, Seventh Edition, April 2021, Section 5, Chapter 1, p 1–12.

[241] *See* 76 FR 81728 (December 28, 2011).

[242] Response to Technical Comments for Sections E through H of the **Federal Register** Notice for the Oklahoma Regional Haze and Visibility Transport Federal Implementation Plan, Docket No. EPA–R06–OAR–2010–0190, 12/13/2011. See comment and response beginning on page 91.

[243] EIA Form 923. Available at *https://www.eia.gov/electricity/data/eia923/.*

[244] EPA Air Markets and Programs Data. Available at *https://campd.epa.gov/.*

[245] *See* ''Coal vs CEM data 2016–2020_ML.xlsx,'' tab ''charts,'' cell H12. This Excel spreadsheet is located in the docket associated with this proposed rule.

burned in 2016–2020, 95 percent control would equate to an emission rate of 0.08 lb/MMBtu for each unit.

3. Step 4: Evaluate Impacts and Document the Results for SO_2

The BART Guidelines offer the following with regard to how Step 4 should be conducted: [246]

After you identify the available and technically feasible control technology options, you are expected to conduct the following analyses when you make a BART determination:

Impact analysis part 1: Costs of compliance,

Impact analysis part 2: Energy impacts, and

Impact analysis part 3: Non-air quality environmental impacts.

Impact analysis part 4: Remaining useful life.

We evaluate the cost of compliance on a unit by unit basis because control cost analysis depends on specific factors that can vary from unit to unit. However, we generally evaluate the energy impacts, non-air quality impacts, and the remaining useful life for all the units in question together because there are usually no appreciable differences in these factors from unit to unit.[247] In developing our cost estimates for the units in Table 7, we rely on the methods and principles contained within the EPA Air Pollution Control Cost Manual (the Control Cost Manual, or Manual).[248] We proceed in our SO_2 cost analyses by examining the current SO_2 emissions and the level of SO_2 control, if any, for each of the coal-fired units listed in Table 7.[249]

a. Impact Analysis Part 1: Cost of Compliance for DSI, SDA, and Wet FGD

As we discuss in Section VII.B.2. and in our 2023 BART FIP TSD associated with this notice, we evaluated each unit at the assumed maximum SO_2 performance levels, considering the type of SO_2 control device. For DSI, in addition to evaluating each unit at the assumed maximum achievable level of SO_2 control, we also evaluated each unit at 50 percent control efficiency. In Table 9 we present a summary of our DSI, SDA, and wet FGD cost analysis.[250]

TABLE 9—SUMMARY OF DSI, SDA, AND WET FGD COST ANALYSIS

Facility	Unit	Control	Control level (%)	SO_2 reduction (tpy)	Annualized cost	Cost effectiveness (/ton) [1]	Incremental Cost-effectiveness(/ton) [2 3]
Coleto Creek	1	DSI	50	6,680	$15,016,712	$2,249	
		DSI	90	12,024	29,320,229	2,439	2,677
		SDA	91	12,035	32,400,831	2,692	3,246
		Wet FGD	94	12,448	36,238,608	2,911	9,292
Harrington	061B	DSI	50	1,892	7,075,817	3,740	
		DSI	80	3,027	11,596,018	3,830	3,983
		SDA	89	3,327	21,967,236	6,603	10,377
	062B	DSI	50	2,703	7,408,200	2,742	
		DSI	89	4,794	13,104,954	2,734	2,724
		SDA	89	4,812	23,369,564	4,857	7,568
Welsh	1	DSI	50	3,959	10,952,162	2,766	
		DSI	87	6,885	18,562,875	2,696	2,601
		SDA	87	6,878	30,056,814	4,370	6,545
		Wet FGD	91	7,219	32,464,043	4,497	7,059
W.A. Parish	WAP5	DSI	50	6,689	15,125,672	2,262	
		DSI	90	12,039	29,457,805	2,447	2,679
		SDA	91	12,139	36,957,568	3,044	4,006
		Wet FGD	94	12,560	38,607,330	3,074	3,919
	WAP6	DSI	50	6,902	15,489,974	2,244	
		DSI	90	12,423	30,246,942	2,435	2,673
		SDA	91	12,475	33,070,310	2,651	3,155
		Wet FGD	94	12,908	35,073,781	2,717	4,627

[1] We evaluated DSI both at the assumed maximum DSI performance levels of 80/90 percent specified in the April 2017 IPM DSI documentation and at 50 percent control efficiency. However, we note there is uncertainty that the units we are evaluating for DSI are actually capable of achieving the assumed maximum DSI performance levels specified in the April 2017 IPM DSI documentation and there is also potential uncertainty in the DSI cost estimates at these high DSI performance levels.

[2] The incremental cost effectiveness calculation compares the costs and performance level of a control option to those of the next most stringent option, as shown in the following formula (with respect to cost per emissions reduction): Incremental Cost Effectiveness (dollars per incremental ton removed) = (Total annualized costs of control option) − (Total annualized costs of next control option) ÷ (Control option annual emissions) − (Next control option annual emissions). See Section IV.D.4.e of Appendix Y to Part 51—Guidelines for BART Determinations Under the Regional Haze Rule.

[3] We calculated the incremental cost-effectiveness of SDA by comparing it to DSI at 50 percent control efficiency rather than to DSI at 80/87/89/90 percent control efficiency. We took this approach given the following considerations: (1) the control efficiencies of SDA and DSI at the assumed maximum DSI performance level for units with fabric filters specified in the April 2017 IPM DSI documentation are assumed to be identical; (2) there is uncertainty that the units we are evaluating for DSI are actually capable of achieving the assumed maximum DSI performance levels specified in the April 2017 IPM DSI documentation; and (3) there is potential uncertainty in the cost estimates for DSI at these high DSI performance levels, as discussed later in this subsection.

[246] 70 FR at 39166.

[247] To the extent these factors inform the cost of controls, consistent with the BART Guidelines, they do inform our considerations on a unit-by-unit basis.

[248] EPA Air Pollution Control Cost Manual, Seventh Edition, April 2021 available at *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual.* The EPA is currently in the process of updating the Control Cost Manual and this update will be the Seventh Edition. Although updates are not yet complete for all sections the EPA intends to update in the Seventh Edition, updated Section 5, Chapter 1, which is titled ''Wet and Dry Scrubbers for Acid Gas Control,'' is now available and is part of the Seventh Edition of the Control Cost Manual.

[249] W.A. Parish WAP4 is the only gas-fired unit we determined to be subject to BART. As we discussed in Section VII.B.1.c, gas-fired EGUs have inherently low SO_2 emissions and there are no known SO_2 controls that can be evaluated. Therefore, our cost analysis does not include WAP4.

[250] In this table, the annualized cost is the sum of the annualized capital cost and the annualized operational cost. See our TSD for more information on how these costs were calculated.

For the coal units without any SO_2 control, we calculated the cost of installing DSI, an SDA scrubber, and a wet FGD scrubber. In order to estimate the costs for SDA scrubbers and wet FGD scrubbers, we used the ''Air Pollution Control Cost Estimation Spreadsheet For Wet and Dry Scrubbers for Acid Gas Control,'' which is an Excel-based tool that can be used to estimate the costs for installing and operating scrubbers for reducing sulfur dioxide and acidic gas emissions from fossil fuel-fired combustion units and other industrial sources of acid gases.[251] The methodologies for wet FGD scrubbers and SDA scrubbers are based on those from version 6 of our IPM model.[252] The size and costs of a wet FGD scrubber and SDA scrubber are based primarily on the size of the combustion unit and the sulfur content of the coal burned. The wet FGD scrubber methodology includes cost algorithms for capital and operating cost for wastewater treatment consisting of chemical pretreatment, low hydraulic residence time biological reduction, and ultrafiltration to treat wastewater generated by the wet FGD system. The calculation methodologies used in the ''Air Pollution Control Cost Estimation Spreadsheet For Wet and Dry Scrubbers for Acid Gas Control,'' are those presented in the U.S. EPA's Air Pollution Control Cost Manual.

The cost algorithm used in the ''Air Pollution Control Cost Estimation Spreadsheet For Wet and Dry Scrubbers for Acid Gas Control'' calculates the Total Capital Investment, Direct Annual Cost, and Indirect Annual Cost. The Total Capital Investment for wet FGD is a function of the absorber island capital costs, reagent preparation equipment costs, waste handling equipment costs, balance of plant costs, and wastewater treatment facility costs. For SDA, the Total Capital Investment is a function of the absorber island capital costs that include both an absorber and a baghouse, reagent preparation and waste recycling/handling costs, and balance of plant costs. The Direct Annual Costs consist of annual maintenance cost, annual operator cost, annual reagent cost, annual make-up water cost, annual waste disposal cost, and annual auxiliary power cost. Additionally, the Direct Annual Costs for wet FGD also include annual wastewater treatment cost and the replacement cost of a mercury monitor (replaced once every 6 years). The Indirect Annual Cost consists of administrative charges and capital recovery costs.

To estimate the costs for DSI, we relied on the EPA's April 2017 IPM DSI documentation[253] and the 2019 version of the EPA's RCA tool, which employs version 6 of our IPM model.[254] The cost algorithm used in the RCA tool calculates the Total Project Cost (TPC), Fixed Operating and Maintenance (Fixed O&M) costs, and Variable Operating and Maintenance (Variable O&M) costs. As we discuss in Section VII.B.2.a., for DSI systems using a fabric filter for particulate control and operating at high SO_2 removal efficiency, it is expected that filter bag wear would occur more rapidly and that filter bags would need to be replaced more frequently due to the increased dry waste product. The frequent need to clean and replace the filter bags may become impractical and additional fabric filter compartments may need to be added to handle the high loading that occurs at high SO_2 removal efficiencies. This impacts the cost and leads to some uncertainty in our cost estimates for DSI at high SO_2 removal efficiencies given that we do not have site-specific information and performance testing to determine how frequently filter bags would need to be replaced or whether additional fabric filter compartments are necessary. Similarly, DSI systems with an ESP for particulate control may not be capable of handling the higher loadings at high SO_2 removal efficiencies and would require consideration of additional costs for a new ESP or fabric filter to handle the load at these high sorbent injection rates. This impacts the cost and leads to some uncertainty in our cost estimates for DSI with an existing ESP (for Harrington Unit 061B) given that our cost estimates do not reflect the cost of a new ESP or fabric filter even though we do not know with certainty whether the existing ESP can handle the high sorbent injection rates needed at high SO_2 removal efficiency.

As we discuss in Section VII.B.2.a, we expect that by the time this proposal is published in the **Federal Register**, or shortly thereafter, the EPA will have issued an updated version of the IPM DSI documentation and an updated version of the RCA tool for calculating the cost of DSI. We will include these documents in the docket once they are finalized and made publicly available. As these updated documents were not available at the time we developed our cost analysis, we did not rely on this information in our DSI cost analysis presented in this proposal. In general, the updated IPM DSI documentation and updated RCA tool for DSI suggest that DSI could potentially achieve higher SO_2 control efficiencies and at a similar cost per SO_2 tons removed. Absent site-specific information from the facilities that we evaluated for DSI, we believe that our concerns regarding the uncertainty of whether these units are actually capable of achieving the assumed maximum DSI performance levels and the uncertainty in the cost estimates for DSI at high SO_2 removal efficiencies would still exist even if we were to rely on the updated versions of the IPM DSI documentation and the RCA tool. However, we invite comments on the range and maximum control efficiency that can be achieved with DSI at the evaluated units and estimates of the range of associated costs. We are especially interested in any site-specific DSI testing for the units we evaluated to determine the range and maximum control efficiency that can be achieved at those units and any other unit-specific information that would help provide better insight into the unit-specific DSI costs. Any data to support the control efficiency range, maximum control efficiency, and cost of DSI for a particular unit should be submitted along with those comments. We will further consider DSI site-specific information provided to us during the public comment period in our final decision and potentially re-evaluate DSI for those particular units.

The cost models used in IPM version 6 were based on 2016 dollars. Thus, in

[251] Air Pollution Control Cost Estimation Spreadsheet For Wet and Dry Scrubbers for Acid Gas Control, U.S. Environmental Protection Agency, Air Economics Group, Health and Environmental Impacts Division, Office of Air Quality Planning and Standards (January 2023), downloaded from *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution.*

[252] *See* Documentation for EPA's Power Sector Modeling Platform v6 Using the Integrated Planning Model, dated September 2021. Documentation for v.6 downloaded from *https://www.epa.gov/power-sector-modeling/documentation-epas-power-sector-modeling-platform-v6-summer-2021-reference.*

[253] *See* Documentation for EPA's Power Sector Modeling Platform v6 Using the Integrated Planning Model, dated September 2021. Documentation for v.6 downloaded from *https://www.epa.gov/power-sector-modeling/documentation-epas-power-sector-modeling-platform-v6-summer-2021-reference.*

IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–5: DSI Cost Methodology, downloaded from *https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-5_dsi_cost_development_methodology.pdf.*

[254] Retrofit Cost Analyzer, rev: 06–04–2019, downloaded from *https://www.epa.gov/power-sector-modeling/retrofit-cost-analyzer.*

performing the cost calculations [255] for each unit listed in Table 9 we have escalated the costs to 2020 dollars. For DSI, we accomplished this escalation using the annual Chemical Engineering Plant Cost Indices (CEPCI). For the SDA and wet FGD scrubbers, the ''Air Pollution Control Cost Estimation Spreadsheet For Wet and Dry Scrubbers for Acid Gas Control'' allows the user to enter a different dollar-year for costs and the corresponding cost index if a different dollar-year is desired. Using this capability, we entered the 2020 CEPCI index into the spreadsheet to estimate the cost of wet FGD scrubbers and SDA scrubbers in 2020 dollars. For a more detailed discussion of the inputs and cost calculations, see our 2023 BART FIP TSD in the docket.

b. Impact Analysis Part 1: Cost of Compliance for Scrubber Upgrades

In our 2023 BART FIP TSD associated with this proposed rulemaking, we analyze those units listed in Table 7 of this notice that have an existing SO_2 scrubber in order to determine if cost-effective scrubber upgrades are available. Of our subject-to-BART units, Martin Lake Units 1, 2, 3; and Fayette Units 1 and 2 are currently equipped with wet FGDs. As discussed in Section VII.B.1.b, because the Fayette units are already performing at the maximum level of control we considered for wet FGD, we will not evaluate any additional scrubber upgrades for these two units.

Martin Lake was the highest emitting EGU facility for SO_2 in the United States for the past four years (2018–2021). On an individual unit basis, Martin Lake Units 1, 2, and 3 were the top three emitting units in the country in 2018 and among the top four emitting units in 2019 and 2021.[256] In general, given the very large emissions, potential for large emission reductions, and the lower costs associated with upgrading existing controls compared to a new scrubber retrofit, it is reasonable to expect scrubber upgrades at Martin Lake to be very cost-effective in terms of cost per ton removed. A review of emissions data for these units shows significant variability and demonstrates the ability of these units to be operated with higher removal efficiency to maintain lower emission levels for periods of time depending on the mixture of coals, the operation of the scrubbers, and the amount of scrubber bypass. For example, in 2016, the annual average emission rate for the three units ranged from 0.3 to 0.43 lb/MMBtu, but in 2020, the annual average emission rate ranged from 0.55 to 0.73 lb/MMBtu.[257] At the same time, the amount of higher sulfur lignite burned in 2016 was higher than in 2020 [258] (61 to 71 percent of heat input came from lignite in 2016 for the three units compared to 14 to 32 percent in 2020), meaning that the scrubbers and amount bypassed were operated in a manner that achieved a significantly higher overall removal efficiency in 2016 than in 2020. Table 10 summarizes the annual emission rate and the estimated annual scrubber removal efficiency. Given the variability in demonstrated scrubber efficiency, higher removal efficiency can be and has been achieved with optimized operation, reduced bypass, and increased reagent use with the current configuration of the scrubbers. As discussed earlier in this section, additional remaining cost-effective physical modifications to the scrubbers can further improve scrubber removal efficiency. This further supports our assessment that increased scrubber efficiency is cost-effective.

TABLE 10—MARTIN LAKE ANNUAL EMISSION RATE AND ESTIMATED ANNUAL SCRUBBER REMOVAL EFFICIENCY

Martin Lake	Annual emission rate (lb/MMBtu)		Estimated overall removal efficiency (%)	
	2016	2020	2016	2020
Unit 1	0.42	0.73	78.2	52.8
Unit 2	0.30	0.60	84.5	62.8
Unit 3	0.43	0.55	78.0	62.8

The cost of scrubber upgrades at coal-fired power plants has been evaluated in many other instances in both the context of BART and reasonable progress for both the first and second planning periods for regional haze. Based on what we have seen in other regional haze actions, upgrading an underperforming SO_2 scrubber is generally very cost-effective.[259] In our TSD, we provide further discussion of other regional haze actions where scrubber upgrades have been found to be very cost-effective.

In the Texas Regional Haze SIP for the Second Planning Period recently submitted to us by TCEQ, the State evaluated Martin Lake Units 1, 2, and 3 for controls under the reasonable progress requirements for the regional haze second planning period.[260] Specifically, TCEQ evaluated scrubber upgrades for the Martin Lake units, the same SO_2 control type we have evaluated for those units in this proposal. In that SIP submittal, TCEQ took an approach in its cost analysis of scrubber upgrades different from ours in this proposal and they did not rely on cost information from the facility. As they did not rely on cost information claimed to be CBI by the facility, TCEQ was able to present estimated cost-effectiveness numbers for scrubber upgrades for the Martin Lake units in their SIP submittal. TCEQ estimated the cost-effectiveness of scrubber upgrades at Martin Lake to be $907/ton for Unit

[255] The cost calculation spreadsheets can be found in the docket for this action under the heading ''Cost Calculations''.

[256] In 2019 and 2021, a unit at the Gavin Facility in Ohio was the third highest emitting unit in the country. In 2020, the three Martin Lake units fell within the top 6 units. *See* ''Largest_units_SO_2_annual emissions 2016–2021.xlsx'' available in the docket for this action.

[257] *See* ''Largest_units_SO_2_annual emissions 2016–2021.xlsx'' available in the docket for this action.

[258] *See* ''Coal vs CEM data 2016–2020_ML.xlsx'' available in the docket for this action.

[259] *See* for instance, the North Dakota Regional Haze SIP: scrubber upgrades for the Milton R. Young Station Unit 2 were evaluated under BART and were found to cost $522/ton and scrubber upgrades with coal drying for the Coal Creek Station Units 1 and 2 were evaluated under BART and found to cost $555/ton at each unit. See the EPA's final action approving the SO_2 BART determinations for the Coal Creek Station Units 1 and 2 and for the Milton R. Young Station Unit 2 at 77 FR 20894 (April 6, 2012). See also the Wyoming Regional Haze SIP: scrubber upgrades for Wyodak Unit 1 were evaluated to address the regional haze rule requirements under 40 CFR 51.309 and found to cost $1,167/ton. The EPA approved this portion of the Wyoming Regional Haze SIP at 77 FR 73926 (December 12, 2012).

[260] The Texas Regional Haze SIP for the Second Planning Period was submitted to the EPA by TCEQ on July 20, 2021. A copy of this submission is available at *https://www.tceq.texas.gov/airquality/sip/bart/haze_sip.html* and in the docket for this action.

1; $1,040/ton for Unit 2; and $891/ton for Unit 3. Since we have not completed our review of the Texas Regional Haze SIP for the Second Planning Period and have not yet proposed action on it, we are not at this time taking a position on the approvability or appropriateness of TCEQ's cost analyses and determinations in the Texas Regional Haze SIP for the Second Planning Period. We merely present TCEQ's cost-effectiveness estimates here to illustrate that they are comparable to our own cost-effectiveness estimates in this notice.

In our cost analysis of scrubber upgrades for the Martin Lake units, we are using information we received from the facility in response to our previous CAA Section 114(a) information collection request. We are limited in what information we can include in this section because the facility claimed this information as CBI. We can disclose that we previously used this information claimed as CBI by the facility to calculate the total annualized costs for the Martin Lake units in our 2016 Texas-Oklahoma FIP.[261] We have escalated those total annualized costs to 2020 dollars and are using this to estimate the cost-effectiveness of scrubber upgrades at these units. As we discuss in Section VII.B.2.b, we believe that modifications necessary to eliminate the bypass could be performed using proven equipment and techniques to increase the control efficiency of the scrubbers to 95 percent and substantially reduce SO_2 emissions at these units. Our estimates of the baseline emissions and the annual SO_2 emissions reductions anticipated from upgrading the scrubbers at Martin Lake Units 1, 2, and 3 are presented in Table 11. Using the anticipated annual SO_2 emissions reductions presented in Table 11, we have estimated the cost-effectiveness of scrubber upgrades at these units. Because those calculations depended on cost information claimed by the facility as CBI, we cannot present them here except to note that for each unit, the cost-effectiveness was less than $1,200/ton.

TABLE 11—MARTIN LAKE UPDATED BASELINE EMISSIONS AND SO_2 EMISSIONS REDUCTIONS DUE TO SCRUBBER UPGRADES

Unit	2016–2020 avg annual emissions (tons)	SO_2 emissions at 95% control (tons)	Annual SO_2 emissions reduction due to crubber upgrade (tons)	SO_2 emission rate at 95% control (lb/MMBtu)
Martin Lake 1	14,885	2,047	12,838	0.08
Martin Lake 2	11,909	1,769	10,140	0.08
Martin Lake 3	14,121	1,941	12,180	0.08
Total SO_2 Removed			35,158	

We recognize that the information we used in our cost analysis on scrubber upgrades was provided by the facility several years ago and that our escalation of the total annualized costs from 2013 to 2020 dollars introduces some level of uncertainty in our cost estimates. We acknowledge that it is reasonable to assume that the cost information we received from the facility may have changed in the interim, due to changes in the costs of various materials and services, as well as possible recent upgrades to the scrubbers that may have already been implemented at these units that would no longer need to be considered in our cost analysis. However, based on the information presented in this subsection, we find that the cost of scrubber upgrades at the Martin Lake units is so low in terms of dollars per ton reduced such that even if we had updated cost information, we expect that scrubber upgrades would continue to be very cost-effective. Accordingly, we would still propose to require upgrades to these SO_2 scrubbers in light of the significant visibility benefits, as discussed later in our weighing of the factors in Section VIII. Nevertheless, we invite comment on any additional analysis on the cost of scrubber upgrades at the Martin Lake units that may have been conducted in the interim period following Luminant's response to our request for cost information. We also invite comments regarding documentation on any upgrades or optimization that may have been made to the scrubbers at the Martin Lake units in the interim period. Finally, we invite comment on whether a lower emission limit of 0.04 lb/MMBtu should be required that would be consistent with 95 percent control efficiency and the burning of only subbituminous coal.[262]

The Fayette Units 1 and 2 are currently equipped with high performing wet FGDs. Both units have demonstrated the ability to maintain a SO_2 30 BOD average below 0.04 lb/MMBtu for years at a time.[263] As we discuss in Section VII.B.2, we evaluate BART demonstrating that retrofit wet FGDs should be evaluated at 98 percent control not to go below 0.04 lb/MMBtu. Because the Fayette units are already performing below this level, we propose that no scrubber upgrades are necessary and there are no additional costs associated with maintaining the current levels of operation.

c. Impact Analysis Parts 2, 3, and 4: Energy and Non-Air Quality Environmental Impacts, and Remaining Useful Life

i. Energy and Non-Air Quality Environmental Impacts

Regarding the analysis of energy impacts, the BART Guidelines advise, ''You should examine the energy requirements of the control technology and determine whether the use of that technology results in energy penalties or benefits.'' [264] The key part of this analysis is the energy requirements of the ''control technology.'' As such, this part of the analysis is focused on considering the various energy impacts of the control technologies identified earlier in the BART analysis as technologically feasible and determining whether there are energy penalties or benefits associated that may factor into the overall decision to select

[261] *See generally,* 81 FR 296 (Jan 5, 2016).

[262] In the Matter of an Agreed order Concerning Luminant Generation Company, LLC, Martin Lake Steam Electric Station, Docket No. 2021–0508–MIS includes a requirement to burn only subbituminous coal.

[263] *See* our 2023 BART FIP TSD for graphs of this data.

[264] 70 FR 39103, 39168 (July 6, 2005), [40 CFR part 51, App. Y.].

a certain control technology over another. Such considerations would include extra fuel or electricity to power a control device or the availability of potentially scarce fuels.[265] As discussed in our 2023 BART FIP TSD, in our cost analyses for DSI, SDA, and wet FGD, our cost model allows for the inclusion or exclusion of the cost of the additional auxiliary power required for the pollution controls we considered to be included in the variable operating costs. We chose to include this additional auxiliary power in all cases. Consequently, we believe that any energy impacts of compliance have been adequately considered in our analyses through the inclusion of related costs of electricity to operate the controls.

Neither the CAA nor the BART Guidelines specifically require the examination of grid reliability considerations because utilities may shut down or retire a unit rather than comply with a more stringent emission limit or limits. However, the Guidelines recognize there may be cases where the installation of controls, even when cost-effective, would ''affect the viability of continued plant operations.'' [266] Under the Guidelines, where there are ''unusual circumstances,'' we are permitted to take into consideration ''the conditions of the plant and the economic effects of requiring the use of a control technology.'' [267] If the effects are judged to have a ''severe impact,'' those effects can be considered in the selection process. In such cases, the Guidelines counsel that any determinations be made with an economic analysis with sufficient detail for public review on the ''specific economic effects, parameters, and reasoning.'' [268] It is recognized, by the language of the Guidelines, that any such review process may entail the use of sensitive business information that may be confidential.[269] As suggested by the Guidelines, the information necessary to inform our judgment with respect to the viability of continued operations for a source would likely entail source-specific information on ''product prices, the market share, and the profitability of the source.'' All of that said, the Guidelines also advise that we may ''consider whether other competing plants in the same industry have been required to install BART controls if this information is available.'' [270] Because Texas EGUs are among the last to have SO_2 BART determinations, this information is available. It is indeed the case that other similar EGUs have been required to install the same types of SO_2 BART controls that we are proposing as cost effective. The emission limits that we propose for these sources are based on conventional, proven, at-the-source pollution control technology that is in place across a vast portion of the existing EGU fleet in the United States.[271] In general these pollution controls are cost-effective and can be implemented while the EGU continues in large part to operate as it had before.

Should any of the units faced with a final BART emission limit choose instead to explore retirement, such a decision would presumably be made on the basis of a determination that the retirement of the unit would be the more economical choice, taking into account any and all regulatory requirements impacting the source and market conditions. Further, the relevant grid operator would follow their planning requirements to ensure that sufficient reserve capacity is available.

We have also reviewed available information regarding the grids operating in Texas to provide data on these generation units and reserve capacity. The Welsh and Harrington facilities operate as part of the Southwest Power Pool (SPP).[272] The owners of these facilities have announced plans to convert to natural gas in the near future so it is unlikely that these sources would now choose to shut down as a result of the proposed BART requirements, which could be met by burning natural gas instead of coal.[273] The Electric Reliability Council of Texas (ERCOT) operates Texas's electrical grid which represents 90 percent of the State's electric load. Coleto Creek, Fayette, Martin Lake, and W. A. Parish facilities produce power for the ERCOT grid. As discussed elsewhere, we are not proposing to require additional reductions from the Fayette units due to their high efficiency scrubbers. For that reason, we do not anticipate any impact to operations of this source. Further, the owners of Coleto Creek already have announced their intentions to shut down the unit in 2027,[274] citing costs imposed by Federal regulations for coal ash disposal and wastewater treatment, and market pressures. Therefore, we focus the remainder of this section on the Martin Lake and W. A. Parish BART units.

One way to evaluate potential changes to the grid is to examine forecasted peak demand and generation capacity for summer and winter. These five coal-fired units represent 3,737 MW of summer capacity.[275] ERCOT's November 2022 Report on the Capacity, Demand and Reserves [276] estimates that 2023 operational generation capacity for summer peak demand will be 92,792 MW with additional planned resource capacity expected for the 2023 summer peak demand of 4,400 MW. This includes 1,254 MW of summer-rated gas-fired resources, and the remainder in additional wind and solar resources becoming available by next summer. Summer peak demand is estimated to be 80,218 MW for 2023, resulting in an estimated reserve margin of 22.2 percent for 2023, with capacity outpacing demand by approximately 18,000 MW. That reserve margin is projected to increase to 39.9 percent for summer 2024, as planned generation increases to almost 21,400 MW, largely reflecting solar capacity additions for 2024 and increasing total estimated capacity to 115,000 MW. The current minimum target reserve margin established by ERCOT is 13.75 percent. Projections through 2027 include additional planned generation for a total estimated capacity of 121,000 MW and an estimated reserve margin of 40.1 percent in 2027. Projections for 2028 through 2032 hold generation capacity at 2027 levels (no additional planned capacity) but continue to project increased demand each year resulting in a

[265] 70 FR at 39168–69.

[266] 70 FR 39103, 39171 (July 6, 2005), [40 CFR part 51, App. Y].

[267] *Id.*

[268] 70 FR at 39171.

[269] The **FOR FURTHER INFORMATION** section of this proposal explains how to submit confidential information with comments, and when claims of confidential business information, or CBI, are asserted with respect to any information that is submitted, the EPA regulations at 40 CFR part 2, subpart B-Confidentiality Business Information apply to protect it.

[270] 70 FR at 39171.

[271] *See* EIA Reported Desulfurization Systems in 2020 data in Table 8 of this notice showing the hundreds of scrubber installations that have been performed on similar EGUs.

[272] SPP oversees the bulk electric grid and wholesale power market in the central United States for utilities and transmission companies in 17 States.

[273] *See* Section VII.B.3.c.ii for more information regarding Harrington's conversion to natural gas.

[274] Rosenberg, Mike. ''Coleto Creek Power Plant shutting down by 2027.'' Victoria Advocate, December 1, 2020, *https://www.victoriaadvocate.com/counties/goliad/coleto-creek-power-plant-shutting-down-by-2027/article_261596c8-342b-11eb-92e8-0f9c2d927a2b.html.* Last Accessed February 1, 2023.

[275] Report on the Capacity, Demand, and Reserves (CDR) in the ERCOT Region, 2023–2032. November 29, 2022. Available at *https://www.ercot.com/files/docs/2022/11/29/CapacityDemandandReservesReport_Nov2022.pdf* and in the docket for this action.

[276] Report on the Capacity, Demand, and Reserves (CDR) in the ERCOT Region, 2023–2032. November 29, 2022. Available at *https://www.ercot.com/files/docs/2022/11/29/CapacityDemandandReservesReport_Nov2022.pdf* and in the docket for this action.

decreasing reserve margin each year with 2032 estimated at 36.3 percent.

ERCOT's November 2022 Report on the Capacity, Demand and Reserves [277] estimates that 2023/2024 operational generation capacity for winter peak demand will be 90,599 MW with additional planned resource capacity expected for the 2023 summer peak demand of 2,893 MW. This includes 1,323 MW of winter-rated gas-fired resources, and the remainder in additional wind and solar resources becoming available by next winter. Winter peak demand is estimated to be 66,645 MW for 2023/2024, resulting in an estimated reserve margin of 35.9 percent for Winter 2023/2024. That reserve margin is projected to increase to 36.2 percent for winter 2024/2025, and then decrease to 28.7 percent for winter 2027/2028 as projected peak demand increases.

The SO_2 BART emission limits for these EGUs are proposed to take effect no later than five years from the effective date of a final rule (Martin Lake's scrubber upgrades would be required within three years).[278] Thus, even if all five of these units chose to retire instead of complying with the BART emission limits, the removal of 3,737 MW of summer capacity (3,782 MW winter capacity) would decrease the estimated summer reserve margin to 35.8 percent in 2027 (estimated winter 2027/2028 reserve margin decreases to 23.6 percent). Even if we also account for the additional 655 MW loss of generation from Coleto Creek in 2027, the summer reserve margin would be estimated to be 35.1 percent with estimated summer generating capacity of 116,706 MW, about 30,000 MW more than the projected summer peak demand. The winter 2027/2028 reserve margin would be 22.7 percent, with generating capacity about 16,500 MW higher than peak demand when including the loss of Coleto Creek generation. Further, this level of reserve generating capacity is already projected to be available without considering whether the owners or operators of the affected EGUs would continue to invest and pursue additional replacement generation projects. Based on this analysis, there will be more than sufficient existing and planned capacity in the ERCOT grid to provide for substitute generation and reserve capacity by the time the BART emission limits would take effect to meet the projected demand.

To further evaluate the potential changes to the grid due to retirements, we also examined ERCOT's December 2017 Report on the Capacity, Demand and Reserves,[279] the first report issued after the announced retirement of 4,273 MW of generating capacity from the Luminant facilities (Monticello, Big Brown, and Sandow) in early 2018. Due to the retirements, the reserve margin was projected to decrease to 9.3 percent for summer 2018 and 9.0 percent in summer 2022. In response to requests from Luminant to retire these units, ERCOT issued determinations that these resources were not required to support ERCOT transmission system reliability in early 2018 and allowed to permanently retire. Additional gas, solar and wind resources have come online since that time to increase the generation capacity and provide for a much larger reserve margin. And again, this rule, if finalized, only establishes an emission limit for each EGU that could be met with proven, conventional, at the source control technologies already in use across a broad swath of the U.S. EGU fleet; thus retirements, if they should occur, are at the discretion of the sources and subject to the reliability authority and planning requirements that would be overseen by the grid operator, ERCOT.

Regarding the analysis of non-air quality environmental impacts, the BART Guidelines advise: [280]

> Such environmental impacts include solid or hazardous waste generation and discharges of polluted water from a control device. You should identify any significant or unusual environmental impacts associated with a control alternative that have the potential to affect the selection or elimination of a control alternative. Some control technologies may have potentially significant secondary environmental impacts. Scrubber effluent, for example, may affect water quality and land use. Alternatively, water availability may affect the feasibility and costs of wet scrubbers. Other examples of secondary environmental impacts could include hazardous waste discharges, such as spent catalysts or contaminated carbon. Generally, these types of environmental concerns become important when sensitive site-specific receptors exist or when the incremental emissions reductions potential of the more stringent control is only marginally greater than the next most-effective option. However, the fact that a control device creates liquid and solid waste that must be disposed of does not necessarily argue against selection of that technology as BART, particularly if the control device has been applied to similar facilities elsewhere and the solid or liquid waste is similar to those other applications. On the other hand, where you or the source owner can show that unusual circumstances at the proposed facility create greater problems than experienced elsewhere, this may provide a basis for the elimination of that control alternative as BART.

The SO_2 control technologies we considered in our analysis—DSI and scrubbers—are in wide use in the coal-fired electricity generation industry. Both technologies add spent reagent to the waste stream already generated by the facilities we analyzed. As discussed in our cost analyses for DSI and scrubbers, our cost model includes estimated waste disposal costs in the variable operating costs. With DSI, when sodium-based sorbents such as trona are captured in the same particulate control device as the fly ash, the resulting waste must be landfilled.[281] We are aware that some facilities may sell their fly ash, and that the addition of trona may render that fly ash unsellable. We included the fly ash disposal costs in the variable operation and maintenance costs for DSI in all cases, but our cost analysis did not account for any potential lost revenue resulting from being unable to sell the fly ash. We invite comments on the assumptions we have made regarding fly ash disposal costs and on any unforeseen waste disposal costs associated with DSI when using trona or sodium bicarbonate.

Regarding water related impacts, we recognize that wet FGD requires additional amounts of water as compared to SDA and DSI. Furthermore, based on recent Effluent Limitation Guidelines (ELG), it is expected that all future wet FGD installations will require the facility to incorporate a wastewater treatment facility.[282] While this cost is factored into our cost analysis, it also

[277] Report on the Capacity, Demand, and Reserves (CDR) in the ERCOT Region, 2023–2032. November 29, 2022. Available at *https://www.ercot.com/files/docs/2022/11/29/CapacityDemandandReservesReport_Nov2022.pdf* and in the docket for this action.

[278] *See* 76 FR 81729, 81758 (December 28, 2011) and 81 FR 66332, 66416 (September 27, 2016), where we promulgated regional haze FIPs for Oklahoma and Arkansas, respectively. These FIPs required BART SO_2 emission limits on coal-fired EGUs based on new scrubber retrofits with a compliance date of no later than five years from the effective date of the final rule.

[279] Report on the Capacity, Demand, and Reserves (CDR) in the ERCOT Region, 2018–2027. December 18, 2017. Available at *https://www.ercot.com/files/docs/2018/01/03/CapacityDemandandReserveReport-Dec2017.pdf* and in the docket for this action.

[280] 70 FR at 39169 (July 6, 2005), [40 CFR part 51, App. Y.].

[281] IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy, p.6.

[282] IPM Model—Updates to Cost and Performance for APC Technologies, Wet FGD Cost Development Methodology, Final January 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy, p. 1.

highlights water quality concerns associated with the waste stream for wet FGD as compared to the installation of dry scrubbers and DSI. Additionally, we are aware of water availability concerns in the area surrounding the Harrington facility. As such, the Harrington facility has instituted a water recycling program and obtains some of its water from the City of Amarillo.[283] Because of the increased water required for wet FGD as compared to dry scrubbers and DSI, we limit our SO_2 control analysis for Harrington to DSI and dry scrubbers. For the other facilities where we consider wet FGD as a potential control option, we weigh the additional water usage and wastewater treatment requirements associated with wet FGD in comparison to other control options.

ii. Remaining Useful Life

Regarding the remaining useful life, the BART Guidelines advise:[284]

> You may decide to treat the requirement to consider the source's ''remaining useful life'' of the source for BART determinations as one element of the overall cost analysis. The ''remaining useful life'' of a source, if it represents a relatively short time period, may affect the annualized costs of retrofit controls. For example, the methods for calculating annualized costs in EPA's OAQPS Control Cost Manual require the use of a specified time period for amortization that varies based upon the type of control. If the remaining useful life will clearly exceed this time period, the remaining useful life has essentially no effect on control costs and on the BART determination process. Where the remaining useful life is less than the time period for amortizing costs, you should use this shorter time period in your cost calculations.

We have no reason to conclude that the remaining useful life of any SO_2 control options we are evaluating would be any less than the thirty years recommended by the Control Cost Manual.[285] As we stated in our Oklahoma FIP,[286] the scrubber vendors indicated that the lifetime of a scrubber is equal to the lifetime of the boiler, which might easily be well over 60 years. We identified specific scrubbers installed between 1975 and 1985 that are still in operation, such as the scrubbers at Martin Lake. These scrubbers were installed in the early 1970s, and, while they may be inefficient for a modern scrubber, they are still operational.

Some of the facilities we have analyzed for BART in this action have announced plans to retire or refuel to natural gas within the next several years.[287] For example, we are aware that Xcel Energy has signed an Administrative Order with TCEQ to refuel Harrington Units 061B and 062B to natural gas by January 1, 2025.[288] We discuss this change in future operating conditions in our weighing of the factors. However, the BART Guidelines state that in situations where a future operating parameter will differ from past or current practices, and if such future operating parameters will have a deciding effect in the BART determination, then the future operating parameters need to be made federally enforceable and permanent to consider them in the BART determination.[289]

If a facility owner were to enter into a federally enforceable commitment to shut down or refuel by a date certain, that date would be used to revise the remaining useful life and the annualized costs weighed in making the BART determination. Whether that adjustment in analysis would ultimately alter our final BART determinations from this proposal would depend on the outcome of an updated BART analysis with the inclusion of the shutdown or refuel date. Should an owner decide to shut down or refuel a unit before the compliance date set out for the proposed BART controls, the shutdown or refueling to natural gas would also achieve the required SO_2 emission limits.

4. Step 5: Evaluate Visibility Impacts

The 2023 BART Modeling TSD describes in detail the modeling runs we conducted, our methodology and selection of emission rates, modeling results, and final modeling analyses that we used to evaluate the benefits of the proposed controls and their associated emission decreases on visibility impairment values. In this section, we present a summary of our analyses and our proposed findings regarding the estimated visibility benefits of emission reductions based on the CALPUFF and/or CAMx modeling results. For those sources that are within 450 km of a Class I area (Martin Lake, Harrington, and Welsh), we utilized both CALPUFF and CAMx modeling results to assess the visibility benefits of potential controls. For the remaining coal-fired sources (Coleto Creek, Fayette, and W. A. Parish), only CAMx modeling was utilized, as these sources are located at greater distances from the nearest Class I areas than typically modeled with the CALPUFF model for BART analyses. The CAMx modeling provides unit specific impacts and also total facility impacts where the CALPUFF modeling was performed such that only total facility impacts were generated. Therefore, we do not have unit specific CALPUFF results. Additional details regarding our approach to using CAMx and CALPUFF modeling are within Section VII.A.1 and the 2023 BART Modeling TSD.

To assess the visibility benefits of controls, we modeled the sources with emissions reflecting a low control level and a high control level.[290] [291] For the low control level, we evaluated the visibility benefits of DSI for all the subject to BART units at each facility identified in Tables 12 and 13 that currently have no SO_2 control. For these low control levels, we modeled these units at a DSI SO_2 control level of 50 percent, which we believe is achievable for any unit. At this assumed control

[283] *https://www.powermag.com/xcel-energys-harrington-generating-station-earns-powder-river-basin-coal-users-group-award/.*

[284] 70 FR 39103, 39169, [40 CFR part 51, App. Y].

[285] EPA Air Pollution Control Cost Manual, Seventh Edition, April 2021, Section 5 ''SO_2 and Acid Gas Controls,'' Chapter 1 ''Wet and Dry Scrubbers for Acid Gas Control,'' see Section 1.1.6, p. 1–8, available at *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual.*

[286] Response to Technical Comments for Sections E. through H. of the **Federal Register** Notice for the Oklahoma Regional Haze and Visibility Transport Federal Implementation Plan, Docket No. EPA–R06–OAR–2010–0190, 12/13/2011. See discussion beginning on page 36.

[287] We received a November 21, 2016, letter from the source owner regarding W.A. Parish Units WAP5 & WAP6. The letter available in the docket, explains the units have natural gas firing capabilities and expresses interest in obtaining flexibility to avoid BART or obtaining multiple options for complying with BART. We are not aware of any more recent commitments to change operations at these units that would impact our BART analysis at this time. Rosenberg, Mike. ''Coleto Creek Power Plant shutting down by 2027.'' Victoria Advocate, December 1, 2020, *https://www.victoriaadvocate.com/counties/goliad/coleto-creek-power-plant-shutting-down-by-2027/article_261596c8-342b-11eb-92e8-0f9c2d927a2b.html.* Last Accessed February 1, 2023. ''SWEPCO to End Coal Operations at Two Plants, Upgrade a Third''.'' Southwestern Electric Power Co.'s News Release, November 5, 2020, *https://www.swepco.com/company/news/view?releaseID=5847.* Last Accessed February 2, 2023.

[288] In the Matter of an Agreed Order Concerning Southwestern Public Service Company, dba Xcel Energy, Harrington Station Power Plant, TCEQ Docket No. 2020–0982–MIS (Adopted Oct. 21, 2020). A copy of the Order is available in the docket for this action.

[289] 70 FR at 39167.

[290] As discussed in Section VIII.A and in the 2023 BART Modeling TSD, we completed some additional CALPUFF modeling for Welsh and Harrington units in addition to the low and high control scenarios. We also extrapolated CAMx results to estimate visibility benefits for SDA for units at Coleto Creek, W.A. Parish, and Welsh, and extrapolated CAMx results for Harrington Unit 61B for additional levels of control. See the 2023 BART Modeling TSD for discussion of all modeled and extrapolated visibility modeling.

[291] NO_X and $PM_{10}/PM_{2.5}$ emissions were held constant at baseline emission levels for all emission units in order to isolate visibility improvements due to SO_2 reductions from any visibility benefits that would result from reductions in NO_X emissions.

level, we expect that the corresponding visibility benefits from DSI in most cases would be close to half of the benefits from scrubbers, which are generally at a control level of 90 percent or greater from the baseline. For the high control level, we evaluated the visibility benefits for scrubber retrofits (wet FGD or SDA) for these same units, assuming the same control levels corresponding to SDA (for Harrington BART units) and wet FGD (for all other unscrubbed BART units) that we used in our control cost analyses. NO_X and PM_{10} and $PM_{2.5}$ emissions were held constant for the control case.

We also modeled the visibility benefits of improved efficiency on the existing scrubbers at Martin Lake. We assumed the same 95 percent control level represented by an emission limit of 0.08 lb/MMBtu used in our control cost analyses for the high control level. We also modeled a lower control level based on an emission rate of 0.32 lb/MMBtu. This emission rate is consistent with the limit included in an Agreed Order [292] between TCEQ and Luminant for purposes of addressing SO_2 NAAQS nonattainment requirements.[293]

As discussed in Section VII.B.1.b, Fayette Units 1 and 2 have scrubbers that are operating consistently at a high control level. Accordingly, we modeled both units at an emission rate of 0.04 lb/MMBtu for the high control level, which is consistent with emission rates from the past several years. For the low control scenario, we evaluated the visibility impacts at the current permitted emission rates, which is higher than the current actual emissions. These model runs do not correspond to ''low control'' and ''high control'' specifically. We discuss the model results for Fayette further in Section VIII.B. As discussed elsewhere, we found that for these units no additional controls or upgrades were necessary.

Tables 12 and 13 present a summary of the modeled visibility impacts for the baseline at the Class I areas most impacted by each source, and the visibility benefits from the low and high control scenarios, as predicted by CAMx [294] and CALPUFF. In evaluating the impacts and benefits of control options, we utilized a number of metrics, including change in deciviews on the maximum impacted day for CAMx results and annual 98th percentile for CALPUFF results, and also number of days impacted over 0.5 dv and 1.0 dv. In Section VIII, we provide some additional discussion of model results and additional metrics in weighing the visibility benefits of controls. Consistent with the BART Guidelines, the visibility impacts and benefits modeled in CALPUFF and CAMx are calculated as the change in deciviews compared against natural visibility conditions.[295] For a more detailed discussion of our review of all the modeling results and factors that we considered in evaluating and weighing results, including scrubber upgrades, see our 2023 BART FIP TSD and 2023 BART Modeling TSD.

[292] Agreed Order 2021–0508–MIS, signed February 22, 2022, available in the docket for this action.

[293] The agreed order and accompanying SIP submittal remain before the EPA for review. In this action we are not taking a position on the approvability or appropriateness of the limits in the agreed order for purposes of addressing SO_2 NAAQS nonattainment requirements.

[294] For the CAMx modeling, visibility was assessed using the grid cell containing the monitor representative of the Class I area. In 2016, Carlsbad Caverns shared a monitor with the Guadalupe Mountains and Pecos Wilderness shared a monitor with Wheeler Peak. Therefore, the modeled impacts and benefits at these receptors/monitors were applied to both Class I areas represented by that monitor site.

[295] 40 CFR 51 Appendix Y, IV.D.5: ''Calculate the model results for each receptor as the change in deciviews compared against natural visibility conditions.'' For the specific calculations, see 2023 BART Modeling TSD for this action.

TABLE 12—CAMx MODELING OF BASELINE IMPACTS AND VISIBILITY BENEFITS OF CONTROLS FOR SUBJECT-TO-BART SOURCES

BART source & top 3 Class I areas	2016 Baseline impacts			Low control scenario			High control scenario		
	Impact at class I area (dv)	Number of days ≥0.5 dv	Number of days ≥1.0 dv	Benefit at class I area (dv)	Number of days impacted ≥0.5 dv	Number of days impacted ≥1.0 dv	Benefit at class I area (dv)	Number of days impacted ≥0.5 dv	Number of days impacted≥1.0 dv
Martin Lake, Units 1, 2, and 3				(0.32 lb/MMBtu)			(0.08 lb/MMBtu)		
Caney Creek	6.69	150	101	3.28	97	46	5.00	32	7
Wichita Mountains	5.49	51	27	2.87	21	7	4.57	3	0
Upper Buffalo	5.16	111	70	2.78	61	25	4.39	7	0
Cumulative (all 15 Class I areas)	33.79	521	301	18.29	259	91	27.91	47	7
W.A. Parish, Units WAP4, WAP5, and WAP6				(DSI @50%)			(wet FGD @0.04 lb/MMBtu)		
Wichita Mountains	3.97	35	12	1.73	15	1	3.61	0	0
Caney Creek	3.13	86	38	1.31	48	11	2.59	1	0
Breton	2.21	12	4	0.85	4	2	1.89	0	0
Cumulative (all 15 Class I areas)	17.96	269	91	7.76	119	18	15.66	1	0
Harrington Station, Units 061B and 062B				(DSI @50%)			(SDA @0.06 lb/MMBtu)		
White Mountain	2.64	8	3	0.96	4	1	1.78	1	0
Bandelier	1.60	4	1	0.65	1	0	1.23	0	0
Salt Creek	1.52	13	6	0.49	7	1	0.97	1	0
Cumulative (all 15 Class I areas)	12.77	44	10	5.01	13	2	9.08	2	0
Coleto Creek, Unit 1				(DSI @50%)			(wet FGD @0.04 lb/MMBtu)		
Caney Creek	1.55	18	2	0.67	2	0	1.38	0	0
Breton	1.19	4	1	0.50	1	0	1.08	0	0
Wichita Mountains	1.13	23	3	0.54	4	0	1.00	0	0
Cumulative (all 15 Class I areas)	8.54	69	6	3.92	9	0	7.75	0	0
Welsh, Unit 1				(DSI @50%)			(wet FGD @0.04 lb/MMBtu)		
Caney Creek	1.58	27	6	0.48	8	1	1.08	0	0
Wichita Mountains	1.54	6	2	0.69	2	0	1.34	0	0
Upper Buffalo	1.12	8	1	0.40	2	0	0.83	0	0
Cumulative (all 15 Class I areas)	6.67	46	9	2.60	13	1	5.27	0	0

To further illustrate the CAMx modeled visibility benefits provided by both the low and high control levels, we compared the visibility benefits of the low and high control levels to the baseline impacts in terms of percent reduction in visibility impacts. To make this comparison, we used the maximum impact for each Class I area and compared these values for the low control and high control with the baseline impacts, looking at the values for the highest impacted Class I area and the average of the 15 Class I areas from the baseline modeling to show the benefit for the control levels. For Martin Lake, low and high control resulted in a reduction of visibility impacts at Caney Creek by 49 percent and 75 percent, respectively, and an average reduction of visibility impacts at the 15 Class I areas of 54 percent and 83 percent, respectively. For W.A. Parish, low and high control resulted in a reduction of visibility impacts at Wichita Mountains by 44 percent and 91 percent, respectively, and an average reduction of visibility impacts at the 15 Class I areas of 43 percent and 87 percent, respectively. For Harrington, low and high control resulted in a reduction of visibility impacts by 36 percent and 67 percent, respectively, and an average reduction of visibility impacts at the 15 Class I areas of 39 percent and 71 percent, respectively. For Coleto Creek, low and high control resulted in a reduction of visibility impacts by at Caney Creek 43 percent and 89 percent, respectively, and an average reduction of visibility impacts at the 15 Class I areas of 46 percent and 91 percent, respectively. For Welsh, low and high control resulted in a reduction of visibility impacts at Caney Creek by 30 percent and 68 percent, respectively, and an average reduction of visibility impacts at the 15 Class I areas of 39 percent and 79 percent, respectively. For Fayette, high control resulted in a reduction of visibility impacts at Caney Creek by 0 percent and an average reduction of visibility impacts at the 15 Class I areas of 5 percent. We provide additional analysis of the visibility benefits of the different control levels in Section VIII and in the 2023 BART FIP TSD and 2023 BART Modeling TSD.

For each of the facilities, CAMx predicted a large decrease in the number of days with visibility impacts greater than 0.5 dv with the high level of controls. Aside from impacts on the Caney Creek Class I area, CAMx predicted zero days over 1.0 dv with the high level of controls on the Martin Lake facility. Additional unit-specific information for these sources can be found in the 2023 BART Modeling TSD.

TABLE 13—CALPUFF MODELING BASELINE IMPACT AND VISIBILITY BENEFIT OF CONTROLS FOR SUBJECT-TO-BART SOURCES*

BART source & class I area	2016–18 Baseline				Low control scenario				High control scenario			
	2016 dv	2017 dv	2018 dv	Cumulative 2016–18 # of days with impacts ≥0.5 dv/≥1.0 dv	Benefit at class I area (dv)			Cumulative 2016–18 # of days with impacts ≥0.5 dv/≥1.0 dv	Benefit at class I area (dv)			Cumulative 2016–18 # of days with impacts ≥0.5 dv/≥1.0 dv
					2016 dv	2017 dv	2018 dv		2016 dv	2017 dv	2018 dv	
Martin Lake, Units 1, 2, and 3					(0.32 lb/MMBtu)				(0.08 lb/MMBtu)			
Caney Creek	3.28	3.60	3.35	338/215	1.62	1.78	1.75	222/95	2.12	2.36	2.16	133/44
Upper Buffalo	2.12	2.54	2.27	212/115	1.12	1.39	1.10	100/29	1.58	1.90	1.72	33/8
Wichita Mountains	1.45	1.07	1.15	79/36	0.80	0.58	0.65	25/4	1.21	0.89	0.91	5/2
Welsh, Unit 1					(DSI @50%)				(wet FGD @0.04 lb/MMBtu)			
Caney Creek	0.70	0.94	0.96	77/13	0.17	0.30	0.32	41/3	0.28	0.37	0.53	18/1
Upper Buffalo	0.36	0.49	0.60	16/0	0.14	0.17	0.22	3/0	0.25	0.33	0.42	0/0
Wichita Mountains	0.25	0.35	0.24	3/0	0.09	0.17	0.08	1/0	0.17	0.28	0.16	0/0
Harrington Station, Units 061B and 062B					(DSI @50%)				(SDA @0.06 lb/MMBtu)			
Carlsbad Caverns	0.39	0.41	0.56	16/5	0.12	0.16	0.15	7/1	0.24	0.27	0.31	1/1
Bandelier	0.17	0.12	0.14	2/0	0.06	0.04	0.05	0/0	0.12	0.09	0.11	0/0
Pecos	0.22	0.28	0.24	9/0	0.08	0.09	0.09	3/0	0.15	0.17	0.16	0/0
Salt Creek	0.49	0.59	0.54	27/3	0.13	0.22	0.19	14/1	0.23	0.39	0.32	2/0
Wheeler Peak	0.12	0.15	0.16	2/0	0.03	0.05	0.06	0/0	0.07	0.10	0.11	0/0
White Mountain	0.26	0.43	0.33	7/0	0.09	0.15	0.13	1/0	0.17	0.26	0.24	0/0
Wichita Mountains	0.54	0.45	0.58	24/8	0.19	0.16	0.18	12/0	0.35	0.23	0.33	3/0

*Benefit of control values are the decrease in deciview between baseline and the control scenario. Number of days is the number of days that are equal or greater than 0.5 and 1.0 dv after controls.

As discussed in prior sections, when using CALPUFF, the visibility benefit (dv) is derived from the 98th percentile (eighth highest day for each year) for each Class I area. We provide additional analysis of the benefits of the different control levels in Section VIII and in the 2023 BART FIP TSD and 2023 BART Modeling TSD. As shown in Table 13, CALPUFF predicted large reductions in the number of days over the 1.0 dv threshold under the high control level for all three facilities. For Harrington, CALPUFF results predicted one day with visibility impacts over 1.0 dv compared to baseline impacts of 16 days. For Welsh, CALPUFF results predicted only one day over 1.0 dv compared to baseline impacts of 16 days. For Martin Lake, CALPUFF results predicted 54 days over 1.0 dv compared to baseline impacts of 366 days.

To further illustrate the CALPUFF modeled visibility benefits provided by both the low and high control levels, we also compared the visibility benefits of the low and high control levels to the baseline impacts in terms of percent reduction in visibility impacts as we did in analyzing CAMx benefits. To make this comparison, we first calculated the average of the 98th percentile for the three years modeled for each Class I area. We then compared these values for the low control and high control with the baseline impacts, looking at the values for the highest impacted Class I area and the average of the Class I areas from the baseline modeling to show the benefit for the control levels. For Harrington, Salt Creek was the highest impacted of the seven Class I areas and low and high control resulted in a reduction of visibility impacts by 33 percent and 58 percent, respectively, and an average reduction of visibility impacts at the seven Class I areas of 34 percent and 61 percent, respectively. For Martin Lake, Caney Creek was the highest impacted of the three Class I areas and low and high control resulted in a reduction of visibility impacts by 50 percent and 65 percent, respectively, and an average reduction of visibility impacts at the three Class I areas of 52 percent and 71 percent, respectively. For Welsh, Caney Creek was the highest impacted of the three Class I areas and low and high control resulted in a reduction of visibility impacts by 30 percent and 45 percent, respectively and an average reduction of visibility impacts at the three Class I areas of 34 percent and 57 percent, respectively. As further discussed in the 2023 BART Modeling TSD, CALPUFF model results are not directly comparable to CAMx results due to difference in the modeling analysis as discussed elsewhere (years modeled, receptor(s) modeled, etc.) and difference in the model including the simplified chemistry in CALPUFF. The potential to overestimate nitrate impacts in the CALPUFF model may limit (resulting in an underestimation) the amount of modeled visibility benefits (improvement) on both the 98th percentile days and the number of days above a threshold that result from decreases in SO_2 emissions.

5. BART Five Factor Analysis for PM

In our 2017 Texas BART FIP, we approved Texas's determination in its 2009 Regional Haze SIP that no PM BART controls were appropriate for its EGUs, based on a screening analysis of the visibility impacts from just PM emissions and the premise that EGU SO_2 emissions were covered by the Texas SO_2 Trading Program and NO_X emissions were covered by participation in CSAPR (allowing consideration of PM emissions in isolation). For reasons provided for in Section VI, we are now proposing that our approval was in error and are correcting that error by disapproving the portion of the SIP regarding PM BART for EGUs. Based on this proposed disapproval, the FIP we are proposing to address BART requirements for those Texas EGUs that are subject to BART will cover PM BART.

The BART Guidelines permit us to conduct a streamlined analysis of PM BART for PM sources subject to MACT standards. Unless there are new technologies subsequent to the MACT standards which would lead to cost-effective increases in the level of control, the Guidelines state it is permissible to rely on MACT standards for purposes of BART.[296] With this background, we are providing our evaluation, along with some supplementary information, on the BART sources as divided into two categories: coal-fired EGUs and gas-fired EGUs.

BART Analysis for PM for Coal-Fired Units

All coal-fired EGUs that are subject to BART are currently equipped with either Electrostatic Precipitators (ESPs) or baghouses, or both, as illustrated in Table 14:

TABLE 14—CURRENT PM CONTROLS FOR COAL-FIRED UNITS SUBJECT TO BART[297]

Facility name	Unit ID	Fuel type (primary)	SO_2 control(s)	PM control(s)
Coleto Creek	1	Coal		Baghouse.
Harrington Station	061B	Coal		Electrostatic Precipitator.
Harrington Station	062B	Coal		Baghouse.
Martin Lake	1	Coal	Wet Limestone	Electrostatic Precipitator.
Martin Lake	2	Coal	Wet Limestone	Electrostatic Precipitator.
Martin Lake	3	Coal	Wet Limestone	Electrostatic Precipitator.
Fayette	1	Coal	Wet Limestone	Electrostatic Precipitator.
Fayette	2	Coal	Wet Limestone	Electrostatic Precipitator.
W. A. Parish	WAP5	Coal		Baghouse.
W. A. Parish	WAP6	Coal		Baghouse.
Welsh Power Plant	1	Coal		Baghouse (Began Nov 15, 2015) + Electrostatic Precipitator.

We began our analysis by examining the control efficiencies of both baghouses and ESPs. When considering the units controlled by a baghouse, they were widely reported to be capable of achieving 99.9 percent control of PM, which is the maximum level of control for PM. Therefore, the units equipped with a baghouse will not be further analyzed for PM BART. The remaining units are fitted with ESPs.

The particulate matter control efficiency of ESPs varies somewhat with design, resistivity of the particulate

[296] 70 FR at 39163–64.

[297] *www.eia.gov/electricity/data/eia860/.*

matter, and maintenance of the ESP. We do not have information specifically on the control level efficiency of any of the ESPs for the units in question. However, reported control efficiencies for well-maintained ESPs typically range from greater than 99 percent to 99.9 percent.[298] We therefore consider this pertinent when concluding that the potential additional particulate control that a baghouse can offer over an ESP is relatively minimal.[299] Accordingly, even if we did obtain additional control information specific to the ESP units in question, we do not expect the additional information would result in a different conclusion.

Nevertheless, we will examine the potential cost of retrofitting a typical 500 MW coal- fired unit with a baghouse. Using our baghouse cost algorithms as employed in version 6 of our IPM model,[300] and assuming a conservative air to cloth ratio of 6.0, the results for capital engineering and construction costs are $84,770,000.[301] For the purposes of analyzing the subject units, this cost assumes a retrofit factor of 1.0, and does not consider the demolition of the existing ESP, should it be required in order to make space for the baghouse.

We did not calculate the cost-effectiveness resulting from replacing an ESP with a baghouse because we expect that the tons of additional PM removed by a baghouse over an ESP to be very small, which would result in a very high cost-effectiveness figure. For this reason, we did not model the visibility benefit of replacing an ESP with a baghouse. As noted previously, our visibility impact modeling indicates that the contributions to visibility impairment from the baseline PM emissions of these units are very small, and thus we expect the visibility improvement from replacing an ESP with a baghouse to be minimal. For instance, our CAMx baseline modeling shows that on a source-wide level, impacts from PM emissions on the maximum impacted days was at most 7 percent in the case of Fayette, a few were near 1 percent, and others were less than 1 percent of the total visibility impairment, as calculated as the percent of total extinction due to the source(s) at each subject to BART facility. Similarly, our CALPUFF modeling indicates that visibility impairment from PM is also a small fraction (at most 3 percent for Harrington) of the total visibility impairment due to each source. Therefore, additional PM controls are anticipated to result in very little visibility benefit on the maximum impacted days.

Accordingly, we believe an appropriately stringent PM BART control level that would be met with existing, or otherwise-required, controls is a filterable PM limit of 0.030 lb/MMBtu for each of the coal-fired units subject to BART. This limit is consistent with the Mercury and Air Toxics (MATS) Rule, which establishes an emission standard of 0.030 lb/MMBtu filterable PM (as a surrogate for toxic non-mercury metals) as representing Maximum Achievable Control Technology (MACT) for coal-fired EGUs.[302] This standard derives from the average emission limitation achieved by the best performing 12 percent of existing coal-fired EGUs, as based upon test data used in developing the MATS Rule. Thus, consistent with the BART Guidelines, we are proposing to rely on this limit for purposes of PM BART for all of the coal-fired units as part of our FIP.[303] We understand the coal-fired units covered by this proposal to be subject to MATS, but to the extent the units may be following alternate limits that differ from the surrogate PM limits found in MATS, we welcome comments on different, appropriately stringent limits reflective of current control capabilities.[304] Because we anticipate any limit we assign should be achieved by current control capabilities, we propose that compliance can be met at the effective date of the rule. To address periods of startups and shutdowns, we are further proposing that PM BART for these units will additionally be met by following the work practice standards specified in 40 CFR part 63, subpart UUUUU, Table 3, and using the relevant definitions in 63.10042. We are proposing that the demonstration of compliance can be satisfied by the methods for demonstrating compliance with filterable PM limits that are specified in 40 CFR part 63, subpart UUUUU, Table 7. However, we invite comment on alternate or additional methods of demonstrating compliance.

BART Analysis for PM for Gas-Fired Units

As explained in Section VII.A, W. A. Parish Unit WAP4 is the only gas fired unit that we are proposing to find subject to BART. With respect to gas-fired units, which have inherently low emissions of PM (as well as SO_2),[305] the RHR did not specifically envision new or additional controls or emissions reductions from the PM BART requirement.[306] The BART Guidelines preclude us from stating that PM emissions are *de minimis* when plant-wide emissions exceed 15 tons per years.[307] In assigning a PM BART determination to the W. A. Parish Unit WAP4, there are no practical add-on controls to consider for setting a more stringent PM BART emission limit than what is already required of the unit, and therefore, the status quo reflects the most stringent controls. The Guidelines state that if the most stringent controls are made federally enforceable for BART, then the otherwise required analyses leading up to the BART determination can be skipped.[308] Thus, we are proposing that PM BART for W. A. Parish Unit WAP4 is to limit fuel to pipeline natural gas, as defined at 40 CFR 72.2.

VIII. Weighing of the Five BART Factors and Proposed BART Determinations

In this section, we present our reasoning for our proposed BART determinations for 12 EGUs in Texas, based on our analysis and weighing of the five statutory BART factors for the following unit types: (1) proposed SO_2 and PM BART determinations for 6 coal-fired units with no SO_2 controls, and (2) proposed SO_2 and PM BART determinations for 5 coal-fired units

[298] EPA, ''Air Pollution Control Technology Fact Sheet: Dry Electrostatic Precipitator (ESP)—Wire Plate Type,'' EPA–452/F–03–028. Grieco, G., ''Particulate Matter Control for Coal-fired Generating Units: Separating Perception from Fact,'' *apcmag.net,* February, 2012. Moretti, A.L.; Jones, C.S., ''Advanced Emissions Control Technologies for Coal-Fired Power Plants, Babcox and Wilcox Technical Paper BR–1886, Presented at Power-Gen Asia, Bangkok, Thailand, October 3–5, 2012.

[299] We do not discount the potential health benefits this additional control can have for ambient PM. However, the regional haze program is only concerned with improving the visibility at Class I areas.

[300] IPM Model—Updates to Cost and Performance for APC Technologies, Particulate Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy. Documentation for v.6: Chapter 5: Emission Control Technologies, Attachment 5–7: PM Cost Methodology, downloaded from: *https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-7_pm_control_cost_development_methodology.pdf.*

[301] *Id.* See page 11.

[302] 77 FR 9304, 9450, 9458 (February 16, 2012) (codified at 40 CFR 60.42 Da(a), 60.50 Da(b)(1)); 40 CFR part 63 Subpart UUUUU—National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units.

[303] 70 FR at 39163–64.

[304] The various limits are provided at 40 CFR part 63, subpart UUUUU, Table 2 (''Emission Limits for Existing EGUs'').

[305] AP 42, Fifth Edition, Volume 1, Chapter 1: External Sources, Section 1.4, Natural Gas Combustion, available here: *https://www3.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf.*

[306] *See* 70 FR at 39165.

[307] 70 FR at 39116–17.

[308] 70 FR at 39165 (''. . . you may skip the remaining analyses in this section, including the visibility analysis . . .'').

with existing scrubbers, and (3) proposed SO_2 and PM BART determination for the gas-fired unit (W. A. Parish Unit WAP4).

In previous sections of this proposal, we have described how we assessed the five BART factors. We will now discuss how we weigh these factors in our BART determinations. As a general matter, cost effectiveness and visibility benefits are the driving factors for most of our BART determinations. However, site specific considerations can impact the evaluation of control options and establishing an appropriate BART limit. As defined in the BART Guidelines, ''BART means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by . . . [a BART-eligible source].'' Through this process, we will establish emission limits that represent a system of continuous emission reduction for specific pollutants based on consideration of the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

In considering cost-effectiveness and visibility benefit, we do not eliminate any controls based solely on the magnitude of the cost-effectiveness value, nor do we use cost-effectiveness as the primary determining factor. Rather, we compare the cost-effectiveness to the anticipated visibility benefit, and we take note of any additional considerations. Also, in judging the visibility benefit we do not simply examine the highest value for a given Class I area, or a group of Class I areas, but we also consider the cumulative visibility benefit for all affected Class I areas, the number of days in a calendar year in which we see significant improvements, and other factors.[309] We consider visibility improvement in a holistic manner, taking into account all reasonably anticipated improvements in visibility expected to result at all impacted Class I areas. As explained in Section VII.A, and in accordance with the BART Guidelines, a source with a modeled 0.5 dv impact at a single Class I area ''contributes'' to visibility impairment and must be analyzed for BART controls. Controlling individual units to reduce emissions of a visibility impairing pollutant, such as SO_2, at such a source will address only a fraction of the total visibility impairment and will not result in perceptible improvements (~1 dv improvement) or visibility improvements greater than 0.5 dv. However, when considered in the aggregate, small improvements from controls on multiple sources will lead to visibility progress.

The visibility benefits and cost-effectiveness of all of the controls that form the basis of our proposed BART determinations are within a range found to be acceptable in other BART actions nationwide, with the exception of SDA on Harrington Unit 061B which is discussed in further detail in Section VIII.A.2.a.[310] As we stated in the BART Rule, a reasonable range would be a range that is consistent with cost effectiveness values used in other similar decisions over a period of time.[311] We looked at past BART actions to assess the upper range of cost effectiveness values that have previously been found to be acceptable. In past BART decisions, several controls were required by either EPA or States as BART with average cost-effectiveness values in the $4,200 to $5,100/ton range (escalated to 2020 dollars) and visibility benefits of 0.26 to 0.83 dv. For instance, the EPA promulgated a FIP for Arkansas where we made the determination that SO_2 BART for Flint Creek Unit 1 is an SO_2 emission limit based on dry scrubbers at a cost of $3,845/ton, which is $4,232/ton escalated to 2020 dollars using the CEPCI, and estimated to result in visibility benefit of 0.615 dv at the Class I area with the greatest visibility benefit.[312] [313] The EPA also promulgated a FIP for Wyoming where we made the determination that NO_X BART for Laramie River Units 1, 2, and 3 is a NO_X emission limit based on LNB with SOFA and Selective Catalytic Reduction (SCR) at a cost per unit ranging from $4,375 to $4,461/ton, which is $4,599 to $4,689/ton escalated to 2020 dollars, and estimated to result in visibility benefit ranging from 0.52 to 0.57 dv per unit at the Class I area with the greatest visibility benefit.[314] [315] In that Wyoming Regional Haze FIP, we explained the following:

> In regards to the costs of compliance, we found that the revised average and incremental cost-effectiveness of LNB/SOFA + SCR is in line with what we have found to be acceptable in our other FIPs. The average cost-effectiveness per unit ranges from $4,375 to $4,461/ton, while the incremental cost-effectiveness ranges from $5,449 to $5,871/ton. We believe that these costs are reasonable, especially in light of the significant visibility improvement associated with LNB/SOFA + SCR. As a result, we are finalizing our proposed disapproval of the State's NO_X BART determination for Laramie River Station and finalizing our proposed FIP that includes a NO_X BART determination of LNB/SOFA + SCR, with an emission limit of 0.07 lb/MMBtu (30-day rolling average).[316]

In addition, the EPA approved several BART SIP decisions that required controls with similar cost-effectiveness values. For example, the EPA approved Colorado's determination that NO_X BART for the Colorado Energy Nations Company Unit 5 is a NO_X emission limit based on Low NO_X burners (LNB) with Separated Overfire Air (SOFA) and Selective Non-Catalytic Reduction (SNCR) at a cost of $4,918/ton, which is $5,096/ton escalated to 2020 dollars, and estimated to result in visibility benefit of 0.26 dv at the Class I area with the greatest visibility benefit.[317] [318] The

[309] *See* 70 FR at 39130: ''comparison thresholds can be used in a number of ways in evaluating visibility improvement (*e.g.,* the number of days or hours that the threshold was exceeded, a single threshold for determining whether a change in impacts is significant, a threshold representing an x percent change in improvement, etc.).''

[310] *See* for instance 77 FR 18070 (March 26, 2012): the EPA proposed approval of Colorado's NO_X BART determination of SCR for Hayden Unit 2, later finalized at 77 FR 76871 (December 31, 2012). The estimated cost of SCR at Hayden Unit 2 is $4,064/ton ($4,211/ton when escalated from 2008 dollars to 2020 dollars) and anticipated to result in visibility benefit of 0.85 dv at the Class I area with greatest visibility benefit. We escalated this cost-effectiveness value using the following equation: Cost-effectiveness escalated to 2020 dollars = Cost-effectiveness in 2008 dollars × (2020 CEPCI/2008 CEPCI).

[311] 70 FR at 39168 (July 6, 2005).

[312] *See* the EPA's proposed Arkansas Regional Haze FIP at 80 FR 18944 (April 8, 2015), later finalized at 81 FR 66332 (September 27, 2016). The Arkansas Regional Haze FIP was later replaced with a SIP revision submitted by Arkansas that included the same SO_2 BART determination for Flint Creek Unit 1. See the EPA's approval of Arkansas Regional Haze SIP Revision at 84 FR 51033 (September 27, 2019).

[313] The year basis for the EPA's cost-effectiveness calculation is 2016. We escalated the cost-effectiveness value from 2016 dollars to 2020 dollars using CEPCI and the following equation: Cost-effectiveness escalated to 2020 dollars = Cost-effectiveness in 2016 dollars × (2020 CEPCI/2016 CEPCI); 2016 CEPCI = 541.7, 2020 CEPCI = 596.2.

[314] *See* the EPA's Wyoming Regional Haze FIP at 79 FR 5032 (January 30, 2014).

[315] The year basis for the EPA's cost-effectiveness calculations is 2013. We escalated the cost-effectiveness value from 2013 dollars to 2020 dollars using the CEPCI and the following equation: Cost-effectiveness escalated to 2020 dollars = Cost-effectiveness in 2013 dollars × (2020 CEPCI/2013 CEPCI); 2013 CEPCI = 567.2, 2020 CEPCI = 596.2.

[316] *See* 79 FR at 5047–48.

[317] See the EPA's proposed approval of Colorado Regional Haze SIP at 77 FR 18052, later finalized at 77 FR 76871.

[318] The year basis for Colorado's cost-effectiveness calculation is 2008. We escalated the cost-effectiveness value from 2008 dollars to 2020 dollars using the CEPCI and the following equation: Cost-effectiveness escalated to 2020 dollars = Cost-

Continued

EPA also approved Colorado's determination that NO_X BART for Tri-State Craig Unit 1 is a NO_X emission limit based on SNCR at a cost of $4,877/ton, which is $5,053/ton escalated to 2020 dollars, and estimated to result in visibility benefit of 0.31 dv at the Class I area with the greatest visibility benefit.[319] [320] The EPA approved Kentucky's determination that PM BART for Mill Creek Station Units 3 and 4 is an emission limit based on sorbent injection at a cost of $4,293/ton for Unit 3 and $4,443/ton for Unit 4, which is $4,872/ton and $5,042/ton escalated to 2020 dollars (respectively), and estimated to result in visibility benefit of 0.83 dv for both units combined at the Class I area with the greatest visibility benefit.[321] [322] In these BART determinations, the EPA and States found that the evaluated controls were reasonable based on the weighing of the five factors (including cost-effectiveness and visibility benefits).

A. SO_2 BART for Coal-Fired Units With No SO_2 Controls

In this section, we compare DSI, SDA, and wet FGD using the five BART factors for the six coal-fired units with no SO_2 controls. As discussed in Section VII.B.2 and in our TSD, we evaluated each unit at its assumed maximum achievable DSI performance level using milled trona according to the April 2017 IPM DSI documentation, which corresponds to 90 percent for units with an existing fabric filter baghouse and 80 percent for units with an ESP.[323] [324] All units we evaluated for DSI have an existing baghouse, with the exception of Harrington Unit 061B, which has an ESP. Since we do not have site-specific information and individual DSI performance testing, we do not know with certainty whether the EGUs we are evaluating in this proposal are capable of achieving the assumed maximum DSI performance levels specified in the April 2017 IPM DSI documentation. Taking this into account, and recognizing that DSI has a wide range of SO_2 removal efficiencies, we also evaluated all units at a DSI SO_2 control level of 50 percent, which we believe is a conservatively low DSI control efficiency that any given coal-fired EGU is likely capable of achieving without requiring high sorbent injection rates that may negatively impact the performance of the particulate control device. Evaluating a range of control levels better informs our analysis of control options by providing a range of costs. Additionally, this approach addresses the BART Guidelines directive that in evaluating technically feasible alternatives we ''(1) [ensure we] express the degree of control using a metric that ensures an 'apples to apples' comparison of emissions performance levels among options, and (2) [give] appropriate treatment and consideration of control techniques that can operate over a wide range of emission performance levels.'' [325]

For the units with existing baghouses where we evaluated DSI at 50 percent and 90 percent control, in comparing the 50 percent control level to the higher control level, we found DSI to have similar or slightly higher (up to around 10 percent higher) $/ton average cost-effectiveness at 90 percent control compared to 50 percent control.[326] This is due to higher annual operation and maintenance costs associated with increased sorbent usage, as well as higher capital costs. Similarly, for Harrington Unit 061B, which is the only unit we evaluated that has an existing ESP rather than a baghouse, we found DSI to have a slightly higher $/ton on average at 80 percent control compared to 50 percent control. While the cost-effectiveness of DSI in certain cases had a slightly higher $/ton, when going from 50 percent to 80/90 percent control efficiency, DSI at 80/90 percent control efficiency offered much greater SO_2 reductions and higher resulting visibility benefits compared to 50 percent control efficiency. For all units evaluated, DSI at both 50 percent and 80/90 percent control efficiency has a lower cost-effectiveness ($/ton) than SDA and wet FGD. However, because of the lack of site-specific information and related uncertainty over whether the specific units we are evaluating can achieve these assumed maximum achievable DSI performance levels, which we discuss in Section VII.B.2.a, we place much greater weight on our evaluation of DSI at 50 percent control efficiency compared to 80/90 percent control efficiency. There is also additional potential uncertainty in our cost estimates for DSI at these high performance levels. For the units with existing fabric filters, we do not know how frequently fabric filter bags would need to be cleaned and replaced or whether additional fabric filter compartments are necessary at these high DSI performance levels and so our cost estimates do not include these potential additional costs. For Harrington Unit 061B (the only unit with an existing ESP), our cost estimate for DSI at 80 percent control efficiency does not include the cost of a new ESP or fabric filter even though we do not know with certainty whether the existing ESP would be able to handle the high sorbent injection rates needed at high SO_2 removal efficiency. Therefore, without additional site-specific information regarding the range of maximum control efficiency achievable and associated costs needed to consider DSI at higher control levels, we are not further considering DSI at 80/90 percent control efficiency in our weighing of the factors. We welcome site-specific information and comments on the potential for these units to consistently achieve DSI SO_2 control efficiencies much higher than 50 percent (which may be as high as 80 to 90 percent).

In comparing DSI at 50 percent control level with SDA and wet FGD, we found that DSI at the 50 percent control level was more cost-effective than either SDA or wet FGD. In general, DSI systems have low capital costs in comparison to SDA or wet FGD. At 50 percent control level, the ongoing annual operation and maintenance costs of DSI are comparable to those of SDA and wet FGD. Given the relatively low initial capital costs of DSI as compared to the installation of SDA or wet FGD, DSI may be a more favorable control option from a cost perspective for a coal-fired EGU that may have plans to retire in the next several years. However, we are not aware of any federally enforceable and permanent commitment to cease operations for these sources that would impact the remaining useful life of controls.

effectiveness in 2008 dollars × (2020 CEPCI/2008 CEPCI); 2008 CEPCI = 575.4, 2020 CEPCI = 596.2.

[319] See the EPA's proposed approval of Colorado Regional Haze SIP at 77 FR 18052, later finalized at 77 FR 76871.

[320] The year basis for Colorado's cost-effectiveness calculation is 2008. We escalated the cost-effectiveness value from 2008 dollars to 2020 dollars using the CEPCI and the following equation: Cost-effectiveness escalated to 2020 dollars = Cost-effectiveness in 2008 dollars × (2020 CEPCI/2008 CEPCI); 2008 CEPCI = 575.4, 2020 CEPCI = 596.2.

[321] See the EPA's proposed approval of Kentucky Regional Haze SIP at 76 FR 78194 (December 16, 2011), later finalized at 77 FR 19098 (March 30, 2012).

[322] The year basis for Kentucky's cost-effectiveness calculations is 2007. We escalated the cost-effectiveness value from 2007 dollars to 2020 dollars using the CEPCI and the following equation: Cost-effectiveness escalated to 2020 dollars = Cost-effectiveness in 2007 dollars × (2020 CEPCI/2007 CEPCI); 2007 CEPCI = 525.4, 2020 CEPCI = 596.2.

[323] IPM Model—Updates to Cost and Performance for APC Technologies, Dry Sorbent Injection for SO_2/HCl Control Cost Development Methodology, Final April 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy.

[324] Note for Harrington Unit 062B and Welsh Unit 1, we further limited the maximum DSI control level to that of our calculated SDA control level of 89 percent and 87 percent, respectively.

[325] 70 FR 39166 (July 6, 2005).

[326] Harrington Unit 062B and Welsh Unit 1 show small improvement in cost effectiveness at the higher level of DSI control.

Therefore, we do not place extra weight on the capital cost benefit of DSI at 50 percent control over the visibility benefit gained by SDA. In considering CAMx modeled visibility benefits, wet FGD and SDA provide approximately twice the amount of visibility benefits as DSI at 50 percent control level. Additionally, for all units, with the exception of Harrington Unit 061B, we conclude that scrubbers are approximately $4,900/ton or less, and thus within the range we regularly find to be cost-effective. We are proposing to find that, with the possible exception of Harrington Unit 061B, the resulting visibility benefit offered by scrubbers outweighs any possible advantage DSI at 50 percent control may hold in terms of cost-effectiveness. At higher control efficiencies, DSI may become more favorable as the difference in visibility benefits between DSI and SDA or wet FGD decreases and estimated cost-effectiveness for DSI even at higher control is estimated to be less than that for SDA or wet FGD, resulting in increasing incremental costs between DSI and scrubbers. However, as noted elsewhere, there is uncertainty as to what DSI control efficiencies are achievable for these particular units and the associated costs at these higher control efficiencies. We will further consider site-specific information provided to us during the public comment period in making our final decision on SO_2 BART and potentially re-evaluate DSI for one or more particular units.

As we indicate elsewhere in our proposal, both SDA and wet FGD are mature technologies that are in wide use throughout the United States. In comparing wet FGD versus SDA, wet FGD is slightly less cost-effective than SDA in all cases evaluated for this proposed action. Wet FGD has slightly higher SO_2 removal efficiency than SDA and generally requires lower reagent usage and has lower associated reagent costs than a comparable dry scrubber. However, as the Control Cost Manual explains, ''In general, dry scrubbers have lower capital and operating costs than wet scrubbers because dry scrubbers are generally simpler, consume less water and require less waste processing.'' [327] The Control Cost Manual also notes that SDA has lower auxiliary power usage and lower water usage than wet FGD and does not require any wastewater treatment, unlike a wet FGD.[328] These factors all contribute to the generally lower capital and operating costs of SDA compared to wet FGD. Further, the wet FGD cost algorithms were updated in version 6 of our IPM model to incorporate the capital and operating costs of a wastewater treatment facility for all wet FGDs. The IPM wet FGD Documentation states:

> Industry data from ''Current Capital Cost and Cost-effectiveness of Power Plant Emissions Control Technologies'' prepared by J. E. Cichanowicz for the Utility Air Regulatory Group (UARG) in 2012 to 2014 were used by Sargent & Lundy LLC (S&L) to update the wet FGD cost algorithms from 2013. The published data were significantly augmented by the S&L in-house database of recent wet FGD and wet FGD wastewater treatment system projects. Due to recently published Effluent Limitation Guidelines (ELG), it is expected that all future wet FGDs will have to incorporate a wastewater treatment facility.[329]

The anticipated need for a wastewater treatment facility for all future wet FGDs also contributes to the higher capital and operating costs of wet FGD compared to SDA. We discuss the cost differences and the factors that result in wet FGD being slightly less cost-effective than SDA for the evaluated units in greater detail in our 2023 BART FIP TSD. We solicit comment on any additional factors or information that may affect the costs of wet FGD and/or SDA for the evaluated units and weigh in favor of one control option or the other. Although wet FGD would offer slightly greater SO_2 emission reductions compared to SDA, that the estimated visibility benefits of the two control options are very similar in all cases. In consideration of the additional costs and non-air environmental impacts associated with wet FGD, we propose to conclude that, based on a weighing of these factors, the selection of SDA is appropriate for Coleto Creek Unit 1, W. A. Parish Units WAP5 and WAP6, Welsh Unit 1, and Harrington Unit 062B. We propose that SO_2 BART should be based on the emission limit associated with SDA control levels. For those units with existing fabric filters, DSI could potentially meet the same emission limitations as SDA but this would need to be confirmed with site-specific performance testing. For Harrington Unit 061B, as discussed in Section VIII.A.2., there are unique circumstances that impact the evaluation of controls. For this unit, we propose that SO_2 BART should be an emission limit based on SDA and we propose in the alternative an emission limit based on DSI at 50 percent control level.

We discuss in further detail our consideration of the cost-effectiveness and anticipated visibility benefits of controls for each of the facilities. Tables 15 thru 17 and 19 thru 26 provide summary CAMx and CALPUFF model results of the benefits from the recommended BART controls. The CAMx model results shown in the following tables for each evaluated BART source summarize the benefits from the recommended controls at the three Class I areas most impacted by the source or unit in the baseline modeling. The benefit is calculated as the difference between the maximum impact modeled for the baseline and the maximum impact level modeled under the control scenario. Also summarized are the cumulative benefit and the number of days impacted over 0.5 and 1.0 dv. Cumulative benefit is calculated as the difference in the maximum visibility impacts from the baseline and control scenario summed across the 15 Class I areas included in the CAMx modeling. The baseline total cumulative number of days over 0.5 (1.0) dv is calculated as the sum of the number of modeled days at each of the 15 Class I area impacted over the threshold in the baseline modeling. The reduction in number of days is calculated as the sum of the number of days over the chosen threshold across the 15 Class I areas included in the CAMx modeling for the baseline scenario subtracted by the number of days over the threshold for the control scenario.

In addition to these metrics, to further inform the impacts and potential benefits of emission reductions, we also provide the average of modeled potential impacts from CAMx on a broader set of high impact days. The CAMx model results tables include the average impact across the top ten highest impacted days at the most impacted class I areas (and cumulative across all Class I areas) for the baseline and the recommended control scenario, as well as the calculated visibility benefits, to assess the potential visibility benefits that could be anticipated due to

[327] EPA Air Pollution Control Cost Manual, Seventh Edition, April 2021, Section 5, Chapter 1, titled ''Wet and Dry Scrubbers for Acid Gas Control,'' page 1–11. The EPA Air Pollution Control Cost Manual is available at *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual.*

[328] *Id.* At 1–3 and 1–4.

[329] IPM Model—Updates to Cost and Performance for APC Technologies, Wet FGD Cost Development Methodology, Final January 2017, Project 13527–001, Eastern Research Group, Inc., Prepared by Sargent & Lundy, p. 1.

controls during the ten days with meteorological/transport conditions that result in the largest visibility impacts. These varying conditions affect the reaction rates and transport of pollutants which can be simulated within the photochemical grid model. While the BART analysis is focused on examination of the maximum potential visibility impairment and benefits, these additional metrics provide a sense for the potential benefit across days other than just the maximum impact day.

For Coleto Creek, Parish and Welsh units, we also present the benefits of SDA control levels for comparison with wet FGD, though these SDA control levels were not directly modeled in CAMx. To evaluate SDA control levels using the available CAMx model results, we calculated an estimate of the visibility benefits using a mathematical extrapolation method, which is further discussed in the 2023 BART Modeling TSD.

The CALPUFF model results in the following tables for the evaluated BART sources include the 98th percentile modeled impact and the number of days impacted over 0.5 and 1.0 dv for those Class I areas within the range of CALPUFF typically used for BART. See the 2023 BART Modeling TSD for a complete summary of our visibility benefit analysis of controls, including modeled benefits and impacts at all Class I areas included in the modeling analyses, plus additional metrics considered in the assessment of visibility benefits.

1. Coleto Creek Unit 1

In reviewing Coleto Creek Unit 1, we conclude that the installation of SDA or wet FGD results in significant visibility benefits. We summarize some of these visibility benefits in Table 15 and discuss them after the table.

TABLE 15—CAMX-PREDICTED WET FGD *(SDA)* VISIBILITY BENEFITS AT COLETO CREEK UNIT 1

Coleto Creek Unit 1	Baseline			Controlled		
Class I area	Impact (dv) on the maximum impact day	Avg impact (dv) for the top 10 days	Number of days ≥0.5/ ≥1.0 dv	Visibility improvement (dv) on the maximum impact day *	Avg visibility improvement (dv) for the top 10 days *	Impacted number of days ≥0.5/ ≥1.0 dv
Caney Creek	1.55	0.89	18/2	1.38 *(1.34)*	0.80 *(0.78)*	0/0
Breton	1.19	0.47	4/1	1.08 *(1.05)*	0.43 *(0.42)*	0/0
Wichita Mountains	1.13	0.86	23/3	1.00 *(0.98)*	0.79 *(0.76)*	0/0
Cumulative (all Class I areas)	8.54	5.14	69/6	7.75	4.71	0/0

* Secondary values in parentheses indicate estimated visibility benefits for SDA.

The visibility benefits predicted by CAMx with wet FGD control levels applied to Coleto Creek Unit 1 are summarized in Table 15. We also present the estimated benefits of SDA (shown in parentheses) for the visibility improvement at the top three impacted Class I areas. The small difference in visibility benefits between SDA and wet FGD is consistent with the relatively small difference in control efficacy, with an estimated difference between wet FGD and SDA on the maximum impacted day of 0.04 dv at Caney Creek and an average top 10 days difference of 0.02 dv at Caney Creek and Wichita Mountains.

CAM_x modeling results indicate that wet FGD will eliminate all 69 days impacted over 0.5 dv across all Class I areas. At each of the three most impacted Class I areas (Caney Creek, Breton, and Wichita Mountains), wet FGD will result in visibility improvements of more than 1.0 dv on the maximum impacted days at each Class I area, and for the average of the top 10 most impacted days, CAM_x predicts an average improvement of 0.43 to 0.80 dv at those same three Class I areas. Overall, there is a cumulative improvement to the average of the top 10 impacted days of approximately 4.7 dv with wet FGD across all impacted Class I areas and 7.7 dv cumulative improvement on the maximum impacted day. When compared to wet FGD, we estimate that SDA will result in very similar visibility benefits, ranging from 0.98 to 1.34 dv at the three most impacted Class I areas on the maximum impacted days and an average improvement of 0.42 to 0.78 dv at those same three Class I areas for the average of the top 10 most impacted days. See the 2023 BART Modeling TSD for more information on our estimation of the visibility benefits of SDA. Additional evaluation of the visibility benefits of DSI are presented in the 2023 BART Modeling TSD, but in summary, we find that DSI averaged 46 percent reduction in cumulative visibility impacts at the Class I areas, while wet FGD averaged 91 percent reduction in cumulative visibility impacts overall on the most impacted days. At Caney Creek (highest baseline maximum impact of 1.55 dv), DSI results in improvement on the maximum impacted day of 0.66 dv compared to 1.38 dv for wet FGD and 1.34 dv for SDA. Thus, we conclude that the resulting visibility benefit offered by scrubbers outweighs the possible advantage DSI at 50 percent control may hold in cost-effectiveness.

We also conclude that both SDA and wet FGD are cost-effective at $2,692/ton and $2,911/ton (respectively) and, as discussed in Section VIII, well within a range that we have previously found to be acceptable. Wet FGD is less cost-effective than SDA and we estimate that it would have only a slight additional visibility benefit over SDA. As discussed earlier, in weighing the factors between SDA and wet FGD, we determined the additional visibility benefits did not outweigh the additional cost, water requirements, and wastewater treatment requirements associated with wet FGD. We consider the significant visibility benefits that will result as justification for the cost of SDA at the Coleto Creek Unit 1. We therefore propose that SO_2 BART for Coleto Creek Unit 1 is an emission limit of 0.06 lbs/MMBtu on a 30 BOD rolling average based on the installation of SDA.

2. Harrington Units 061B & 062B

From our identification of available controls, we conclude that both DSI and SDA are technically feasible on both Harrington units. Harrington Unit 061B is distinct from the other coal-fired units we evaluated in that it has an existing ESP rather than a fabric filter. Additionally, this unit had relatively low utilization at times during the 2016–2020 baseline we used in our BART analysis, which has resulted in a cost per SO_2 tons removed for SDA that is relatively high compared to the other units evaluated for SDA. Based on these facts, we are proposing and taking comment on two alternative BART

determinations. We are proposing BART is an emission limit reflective of the installation and operation of SDA on both Unit 061B and 062B. In the alternative, we are proposing BART to be an emission limit reflective of the installation and operation of DSI at 50 percent control for Unit 061B and SDA on 062B. We provide the reasoning for each determination in detail in the following paragraphs and solicit comment on both approaches.

In order to evaluate visibility benefits of control options for the Harrington units, we performed modeling using both CALPUFF and CAM_x. As discussed in Section VII, and in more detail in our 2023 BART Modeling TSD, there are a number of differences between CAMx and CALPUFF with one of the concerns being CALPUFF's simpler chemistry mechanism that may underestimate the benefit of SO_2 reductions versus CAM_x generated values using more state of the science chemistry.

a. Control Scenario 1: SDA on Unit 061B and Unit 062B

TABLE 16—CALPUFF PREDICTED VISIBILITY BENEFITS OF SDA ON BOTH HARRINGTON UNITS.*

Harrington	2016–2018 baseline impact				Modeled Benefit of SDA on both units			Cumulative 2016–2018 # of days with impacts ≥0.5 dv/≥1.0 dv
Class I Area	2016 dv	2017 dv	2018 dv	Cumulative 2016–2018 # of days with impacts ≥0.5 dv/≥1.0 dv	2016 dv	2017 dv	2018 dv	
Carlsbad Caverns	0.39	0.41	0.56	16/5	0.24	0.27	0.31	1/1
Bandelier	0.17	0.12	0.14	2/0	0.12	0.09	0.11	0/0
Pecos	0.22	0.28	0.24	9/0	0.15	0.17	0.16	0/0
Salt Creek	0.49	0.59	0.54	27/3	0.23	0.39	0.32	2/0
Wheeler Peak	0.12	0.15	0.16	2/0	0.07	0.10	0.11	0/0
White Mountain	0.26	0.43	0.33	7/0	0.17	0.26	0.24	0/0
Wichita Mountains	0.54	0.45	0.58	24/8	0.35	0.23	0.33	3/0

* Benefit of control values are the decrease in deciview between baseline and the control scenario. Number of days is the number of days that are equal or greater than 0.5 and 1.0 dv after controls.

As in Section VII, we compared the visibility benefits (as predicted by CALPUFF) of the SDA control levels on both units to the baseline impacts in terms of percent reduction in visibility impacts. To make this comparison, we first calculated the average of the 98th percentile (8th highest value) for the three years modeled for each Class I area and the average for the seven Class I areas. For Harrington, Salt Creek was the highest impacted of the seven Class I areas and SDA control on both units compared to baseline resulted in a reduction of visibility impacts by 58 percent, from 0.54 dv to 0.23 dv. At the second highest impacted Class I area, Wichita Mountains, SDA on both units result in a reduction of visibility impacts by 58 percent, from 0.52 dv to 0.22 dv. SDA on both units also resulted in an average reduction of visibility impacts across the seven Class I areas combined of 61 percent. Using the CALPUFF modeling results from the baseline, we determined the total number of days when facility impacts were greater than 0.5 dv and 1.0 dv. Harrington had a total of 87 days with visibility impacts above 0.5 dv and 16 days above 1.0 dv at the seven Class I areas modeled with CALPUFF. In comparison, SDA on both units results in a large reduction in impacted days with only six days still above 0.5 dv and one day above 1.0 dv at the same seven Class I areas. In conclusion, the CALPUFF modeling results show that SDA on both units would provide notable visibility improvements.

TABLE 17—CAMx-PREDICTED VISIBILITY IMPACT AND BENEFIT OF CONTROLS FOR SDA

Harrington	Baseline			Controlled		
Class I area	Impact (dv) on the maximum impact day	Avg impact (dv) for the top 10 days	Number of days ≥0.5/ ≥1.0 dv	Visibility improvement (dv) on the maximum impact day	Avg visibility improvement (dv) for the top 10 days	Impacted number of days ≥0.5/≥1.0 dv
Harrington Unit 061B						
White Mountain	1.43	0.48	3/1	0.96	0.35	0/0
Bandelier	0.83	0.28	1/0	0.64	0.23	0/0
Salt Creek	0.79	0.55	6/0	0.50	0.43	0/0
Cumulative (all Class I areas)	6.59	3.15	10/1	4.61	2.48	0/0
Harrington Unit 062B						
White Mountain	1.36	0.48	3/1	0.95	0.36	0/0
Bandelier	0.82	0.29	1/0	0.65	0.23	0/0
Salt Creek	0.79	0.56	6/0	0.52	0.45	0/0
Cumulative (all Class I areas)	6.55	3.17	10/1	4.79	2.56	0/0
Harrington Units 061B and 062B						
White Mountain	2.64	0.93	8/3	1.78	0.70	1/0
Bandelier	1.60	0.56	4/1	1.24	0.45	0/0
Salt Creek	1.52	1.08	13/6	0.97	0.86	1/0

TABLE 17—CAMx-PREDICTED VISIBILITY IMPACT AND BENEFIT OF CONTROLS FOR SDA—Continued

Harrington	Baseline			Controlled		
Class I area	Impact (dv) on the maximum impact day	Avg impact (dv) for the top 10 days	Number of days ≥0.5/ ≥1.0 dv	Visibility improvement (dv) on the maximum impact day	Avg visibility improvement (dv) for the top 10 days	Impacted number of days ≥0.5/≥1.0 dv
Cumulative (all Class I areas)	12.77	6.23	44/10	9.08	5.00	2/0

The CAMx results reinforce that installation of SDA at the Harrington units would provide significant visibility benefits. CAMx modeling results indicate SDA on the individual Harrington units will eliminate all days impacted over 0.5 dv at all Class I areas. When considering the combined impacts of the two units, visibility benefits from SDA installed on both units predicts only one day to exceed the 0.5 dv threshold at each of the White Mountain and Salt Creek Class I areas. This is an overall (cumulative Class I areas) reduction from 44 days over 0.5 dv in the baseline to a total of only two days with SDA. The overall cumulative visibility improvement is 9.08 dv on the maximum impacted days and 5.0 dv improvement when considering the average of the top ten days across all 15 Class I areas.

For Harrington Unit 061B, the CAMx results show that SDA would eliminate all days impacted over 0.5 dv for that unit. On the maximum impacted day at White Mountain, SDA results in 0.96 dv improvement over baseline (1.43 dv), an additional 0.44 dv improvement over DSI at 50 percent control (from Table 12). On the maximum impacted day at Bandelier, SDA results in 0.64 dv improvement over the baseline (0.83 dv), an additional 0.3 dv improvement over DSI at 50 percent control. Furthermore, the CAMx results predict that the cumulative visibility benefit provided by SDA on just Unit 061B is 4.6 dv, with eight Class I areas seeing improvements of 0.25 dv or more.[330] SDA control on both units resulted in a reduction of maximum visibility impacts by 67 percent at White Mountain and an average reduction of maximum visibility impacts across all 15 Class I areas of 71 percent. This highlights that emissions and reductions from Harrington impact visibility conditions at several Class I areas. Visibility benefits for SDA on Unit 062B are very similar to Unit 061B.

TABLE 18—COST ANALYSIS SUMMARY FOR UNITS 061B AND 062B

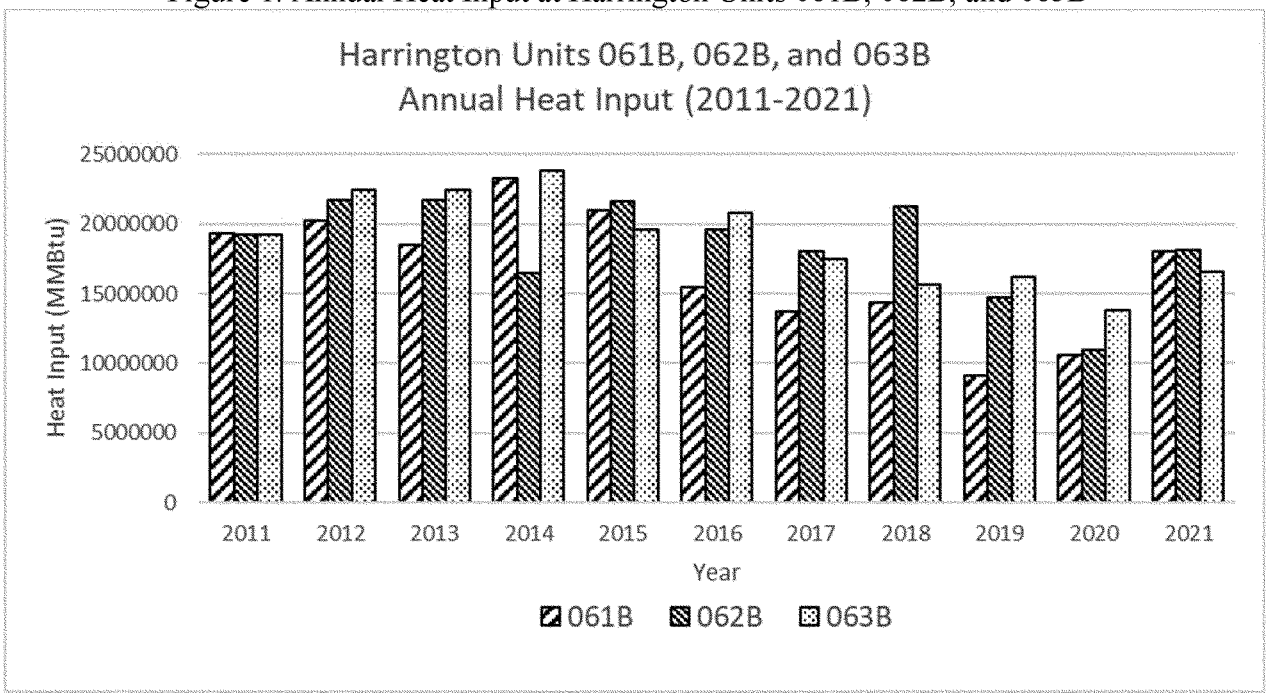
Facility	Control	SO_2 reduction (tpy)	2020 Annualized cost	2020 Cost-effectiveness ($/ton)	2020 Incremental cost-effectiveness ($/ton)
Harrington 061B	DSI w/ESP—50% control efficiency	1,892	$7,075,817	$3,740	.....
Harrington 061B	SDA	3,327	$21,967,236	$6,603	$10,377
Harrington 062B	DSI w/BGH—50% control efficiency	2,703	$7,408,200	$2,742	.....
Harrington 062B	SDA	4,812	$23,369,564	$4,857	$7,568

A summary of our cost analyses from Section VII.B.3. are presented in Table 18. In our analysis, we find SDA to have a cost of $6,603/ton for Harrington Unit 061B, which is above the range for controls that we have previously found to be cost-effective. It is reasonable to expect that similar controls installed on units that are designed for similar capacity would result in similar tons reduced and cost effectiveness. Units 061B and 062B are designed to produce 360 MW of electricity but based on a review of heat input data from 2010 to 2021, differences in utilization or heat input have resulted in different estimates of tons reduced and cost effectiveness.[331] The resulting control cost effectiveness for Harrington Unit 061B ($6,603/ton) is higher than at the similarly designed and sized Unit 062B ($4,857/ton) because of a lower utilization rate.

[330] Bandelier, Guadalupe Mountains, Carlsbad Caverns, Salt Creek, Upper Buffalo, White Mountain, Wheeler Peak, and Pecos visibility improvements with SDA on Harrington Unit 061B ranging from 0.25 dv to 0.96 dv.

[331] *See* ''CAMD Heat Input Data for Harrington Station.xlsx'' available in the docket for this action.

Figure 1. Annual Heat Input at Harrington Units 061B, 062B, and 063B



As shown in Figure 1, the utilization rate of Unit 061B was much lower than Unit 062B during the 2016–2020 baseline period we evaluated for this proposed action. However, utilization rates both before and after the baseline period have been more consistent between the two units, and the utilization rate at Unit 061B has at times exceeded the annual utilization at Unit 062B. The difference in utilization during the baseline period used for the BART analysis results in a relatively smaller estimated reduction of SO_2 emissions (3,327 tons per year with SDA for Unit 061B compared to 4,812 tons per year reduced with SDA for Unit 062B) used to calculate the cost-effectiveness in $/ton removed.

Further examination of the historical heat input for these units shows that Unit 061B annual heat input for 2015 and for 2021 are higher than during the 2016–2020 period, and for both 2015 and 2021, heat input for Units 061B and 062B are similar. During Fall of 2016 through spring of 2017, Unit 061B was utilized less than the other two units at the facility.[332] This pattern continued for 2017/2018 and 2018/2019, resulting in lower overall heat input for the unit during those years. Starting in Fall of 2019, utilization of the BART units at the facility became roughly similar again, except during periods where a unit at the facility was down. We also note that July 2022 heat input for Unit 061B is higher than in any other single month from 2015–2022. These changes in utilization in the more recent period may suggest that the historical pattern of lower utilization of Unit 061B compared to Unit 062B that was observed in the majority of the 2016–2020 period may not continue in the future, which could result in more favorable (lower $/ton) cost-effectiveness for SDA and other controls at Harrington Unit 061B. Furthermore, because there are no enforceable limitations on utilization for these units, there is no assurance that Unit 061B will operate in the future at the lower utilization rates seen between 2016 and 2020.

We find that SDA on Units 061B and 062B provides significant visibility benefits. For Unit 062B we find SDA at $4,857/ton within the range we have previously found to be cost effective for BART. While above the range we have previously found to be cost effective, we still find SDA at $6,603/ton for Unit 061B to be reasonable based on the visibility benefits. Additionally, the estimated higher cost-effectiveness associated with SDA is driven by past lower utilization of Unit 061B during the baseline period. We propose and are taking comment on our determination that BART for Units 061B and 062B is an emission limit of 0.06 lb/MMBtu consistent with the installation and operation of SDA.

b. Control Scenario 2: DSI on Unit 061B and SDA on Unit 062B

Because we recognize the cost effectiveness of SDA at Harrington Unit 061B is above a range of costs we have previously required for BART, we are proposing in the alternative to determine that BART is DSI at a control level of 50 percent, with a requirement to conduct a DSI performance evaluation.

[332] The Harrington facility has three EGUs. The third unit, Unit 063B, is not BART-eligible.

TABLE 19—CALPUFF PREDICTED VISIBILITY BENEFIT OF DSI (50 PERCENT) ON HARRINGTON UNIT 061B AND SDA ON UNIT 062B

Harrington	2016–2018 Baseline				Benefit of DSI—50% at Unit 061B and SDA at Unit 062B			Cumulative 2016–2018 # of days with impacts ≥0.5 dv/≥1.0 dv
Class I area	2016 dv	2017 dv	2018 dv	Cumulative # of days with impacts ≥0.5 dv/ ≥1.0 dv	2016 dv	2017 dv	2018 dv	
Carlsbad Caverns	0.39	0.41	0.56	16/5	0.18	0.21	0.23	5/1
Bandelier	0.17	0.12	0.14	2/0	0.09	0.06	0.08	0/0
Pecos	0.22	0.28	0.24	9/0	0.11	0.13	0.12	0/0
Salt Creek	0.49	0.59	0.54	27/3	0.16	0.30	0.25	11/1
Wheeler Peak	0.12	0.15	0.16	2/0	0.05	0.08	0.08	0/0
White Mountain	0.26	0.43	0.33	7/0	0.14	0.20	0.19	0/0
Wichita Mountains	0.54	0.45	0.58	24/8	0.27	0.20	0.25	8/0

* Benefit of control values are the decrease in deciview between baseline and the control scenario. Number of days is the number of days that are equal or greater than 0.5 and 1.0 dv after controls.

For Harrington, CALPUFF results show installation of DSI at a 50 percent control level on Unit 061B and SDA on Unit 062B resulted in a reduction of visibility impacts by 44 percent from the baseline at the highest impacted Class I area (Salt Creek) from 0.54 dv to 0.31 dv, and an average reduction of visibility impacts across seven Class I areas of 47 percent. For the 2016–2018 modeled years (baseline period), Harrington baseline had a total of 87 days with visibility impacts above 0.5 dv and 16 days above 1.0 dv at the seven Class I areas modeled with CALPUFF. DSI at 50 percent on Unit 061B and SDA on Unit 062B resulted in 24 days above 0.5 dv and two days above 1.0 dv. The incremental visibility benefit between DSI and SDA is larger with the CAMx modeling than with the CALPUFF modeling.[333]

TABLE 20—CAMx PREDICTED VISIBILITY BENEFIT OF DSI (50 PERCENT) ON UNIT 061B AND SDA ON UNIT 062B

Harrington	Baseline			Controlled		
Class I area	Impact (dv) on the maximum impact day	Avg impact (dv) for the top 10 days	Number of days ≥0.5/ ≥1.0 dv	Visibility improvement (dv) on the maximum impact day	Avg visibility improvement (dv) for the top 10 days	Impacted number of days ≥0.5/ ≥1.0 dv
Harrington Unit 061B with DSI (50 percent) control						
White Mountain	1.43	0.48	3/1	0.52	0.19	1/0
Bandelier	0.83	0.28	1/0	0.34	0.12	0/0
Salt Creek	0.79	0.55	6/0	0.26	0.23	1/0
Cumulative (all Class I areas)	6.59	3.15	10/1	2.56	1.34	2/0
Harrington Unit 062B with SDA control						
White Mountain	1.36	0.48	3/1	0.95	0.36	0/0
Bandelier	0.82	0.29	1/0	0.65	0.23	0/0
Salt Creek	0.79	0.56	6/0	0.52	0.45	0/0
Cumulative (all Class I areas)	6.55	3.17	10/1	4.79	2.56	0/0
Harrington Unit 061B with DSI (50 percent) and 062B with SDA controls						
White Mountain	2.64	0.93	8/3	* 1.34	* 0.54	** 1/1
Bandelier	1.60	0.56	4/1	* 0.94	* 0.34	** 1/0
Salt Creek	1.52	1.08	13/6	* 0.73	* 0.66	** 3/0
Cumulative (all Class I areas)	12.77	6.23	44/10	* 7.03	* 3.86	** 5/1

* We did not model this combination (50 percent DSI on 061B and SDA on 062B) directly, so we estimated these values by subtracting the difference between the 50 percent DSI (Low Control) and SDA for 061B improvement values from the combined units SDA-only values in the previous table.

** Again, we did not model this combination directly, so we estimated the number of days based on the High (SDA) and Low (50 percent DSI) control number of days.

The CAMx results for Harrington for this second control scenario show that White Mountain was the most impacted of the 15 Class I areas, the same as in the first control scenario, which had SDA on both units. From Table 17 of the first control scenario, we calculate that SDA control on both units compared to baseline resulted in a reduction of visibility impacts at White Mountain by 67 percent and an average reduction of visibility impacts across the 15 Class I areas of 71 percent; whereas, from Table 20 we calculate that the 50% DSI on Unit 061B and SDA on Unit 062B

[333] *See* the 2023 BART Modeling TSD for detailed discussion of differences between CAMx and CALPUFF models and modeling results.

compared to the baseline resulted in a reduction of visibility impacts at White Mountain by 51 percent and an average reduction of visibility impacts across the 15 Class I areas of 55 percent.

For Unit 061B, by itself, DSI at 50 percent control results in visibility benefits approximately one half of those achieved through SDA. On the maximum impacted day at White Mountain, DSI at 50 percent on Unit 061B results in 0.52 dv improvement compared to 0.96 dv with SDA on that unit; at Bandelier, DSI at 50 percent results in 0.34 dv improvement compared to 0.64 dv with SDA on that unit. The cumulative visibility benefit across all Class I areas on the maximum impacted days for Unit 61B with DSI at 50 percent is 2.56 dv compared to 4.61 dv with SDA. For the average of the top 10 most impacted days, SDA provides for a 0.43 dv benefit at Salt Creek compared to 0.23 dv for DSI at 50 percent control, and SDA provides for 0.35 dv benefit at White Mountain compared to 0.19 dv for DSI at 50 percent control—almost twice the improvement with SDA over DSI at 50% on Unit 061B.

When considering the combined benefits of DSI for Unit 061B and SDA for Unit 062B, the visibility improvement at White Mountain Class I area is estimated to be more than 1.3 (1.78 minus 0.44) dv on the highest impact day, while the average of the top 10 most impacted days visibility improvement is approximately 0.6 (0.86 minus 0.20) dv at Salt Creek. Overall, for the visibility improvement at the cumulative Class I areas from the Harrington facility, CAMx predicts an average improvement of almost 4.0 (5.00 minus 1.14) dv across all the Class I areas evaluated on the top 10 days and an improvement on the maximum impacted days of approximately 7.0 (9.08 minus 2.05) dv with SDA controls on Unit 062B and DSI at 50 percent on Unit 061B. Thus, we find that SDA on Unit 062B and DSI at 50 percent control on Unit 061B results in a significant reduction in visibility impacts from these units and that the benefits are spread across a number of Class I areas in New Mexico, Texas, and Oklahoma. As previously discussed, SDA on both units provides an additional cumulative visibility benefit (the difference between DSI at 50 percent control and SDA on Unit 061B) on the average of the top 10 days from the Harrington facility of 1.14 dv across all the Class I areas evaluated and an additional improvement on the maximum impacted days of 2.05 dv. However, DSI at 50 percent control for Harrington is more cost-effective ($2,742/ton for Unit 062B and $3,740/ton for Unit 061B) than SDA ($4,857/ton for Unit 062B and $6,603/ton for Unit 061B) and is well within the range of what we have previously found to be acceptable in other BART actions. For Harrington Unit 062B, we consider SDA to also be cost-effective and within the range of what we have previously found to be acceptable in other BART actions. As discussed earlier, the cost of SDA at Unit 061B is above the range we have previously found to be cost-effective, and the incremental cost-effectiveness of SDA (going from DSI at 50 percent control efficiency to SDA) is $10,377, which we consider to be relatively high. The cost of SDA at Unit 061B is relatively high, but we still find SDA to be reasonable based on the important visibility benefits of SDA on this unit. However, given the relatively high cost of SDA at Unit 061B, we propose in the alternative that BART for this unit is based on DSI. While the visibility benefits of DSI are approximately half those from SDA on Unit 061B using the CAMx results, installation of DSI is significantly less costly than SDA. Therefore, we are proposing in the alternative that BART for Unit 061B is 0.27 lb/MMBtu based on DSI at 50 percent, with a compliance period of no later than two (2) years from the effective date of the final rule.[334]

We believe Unit 061B is likely capable of achieving an SO_2 emission limit of 0.27 lb/MMBtu with DSI but are not certain whether the unit could achieve a lower emission limit on a 30 BOD or what the potential impacts to PM emissions could be at higher injections rates necessary for higher control efficiencies using the existing ESP. We evaluated DSI at a 50 percent control level as a conservative representative of what DSI can achieve on average. Because the control efficiency of DSI is dependent on several operational variables, we also propose to require a performance evaluation (as provided for in Section IX.A.3) to determine the maximum control efficiency of DSI for Harrington Unit 061B specifically along with an estimate of the cost to operate DSI at this control level.[335] Based on available information, on a unit-specific basis, using sodium-based sorbents, we believe DSI could potentially achieve up to 80 percent or higher SO_2 control, even with an ESP. However, as noted earlier, because of unit-specific uncertainty we are proposing an emissions limit of 0.27 lb/MMBtu based on DSI at 50 percent. If a DSI performance evaluation finds that Unit 061B can meet a lower rate, we will propose to adjust this limit in a future notice to reflect the maximum control efficiency that the unit can consistently meet. As discussed in Sections VII.B.2.a and VII.B.3.a, we are also soliciting comments on the range and maximum control efficiency that can be achieved with DSI at the evaluated units, including Harrington Unit 061B, and estimates of the range of associated costs. We are especially interested in comments on any site-specific DSI testing for Unit 061B to determine the range and maximum control efficiency that can be achieved with DSI at the unit. Any data to support the control efficiency range, maximum control efficiency, and cost of DSI for the unit should be submitted along with those comments. We will further consider DSI site-specific information provided to us during the public comment period in our final decision and potentially re-evaluate DSI for this particular unit.

c. Option To Convert to Natural Gas

Additionally, we recognize that Xcel Energy has announced its intent to convert Harrington Station to natural gas by January 1, 2025. We understand this has been formalized further in an Agreed Order with TCEQ,[336] a PSD permit revision,[337] and approval from the Texas Public Utility Commission (PUC).[338] The BART Guidelines state in situations where a future operating parameter will differ from past or current practices, and if such future operating parameters will have a deciding effect in the BART determination, then the future operating parameters need to be made federally enforceable and permanent in order to consider them in the BART

[334] The proposed regulatory language for this rulemaking only covers our first proposed approach (SDA on Harrington Units 061B and 062B). If the EPA finalizes an action consistent with our alternative proposed approach (DSI at 50% control on Unit 061B and SDA on Unit 062B), we will revise the regulatory language accordingly.

[335] The purpose of the DSI performance evaluation is to determine the lowest SO_2 emission rate Unit 061B would be able to sustainably achieve on a 30 BOD with DSI under three different scenarios for particulate removal ((1) using the existing ESP; (2) with a new ESP installation; and (3) with a new fabric filter installation) and to determine how compliance with such an emission rate would impact our cost estimates for DSI. The proposed DSI performance evaluation requirements are discussed in greater detail in Section IX.A.3.

[336] In the Matter of an Agreed Order Concerning Southwestern Public Service Company, dba cel Energy, Harrington Station Power Plant, TCEQ Docket No. 2020–0982–MIS (Adopted Oct. 21, 2020). A copy of the Order is available in the docket for this action.

[337] *See* Harrington's revised PSD permits (NSR1529 and NSR1388) located in the docket for this action.

[338] *See* the Texas PUC Order, Docket No. 52485–201, located in the docket for this action.

determination.[339] Thus, we are providing Xcel Energy the option to make this conversion to natural gas a permanent and federally enforceable commitment by incorporating it into this FIP. We are proposing that should Xcel Energy agree to these future operating parameters (*i.e.,* operating as a natural gas source no later than January 1, 2025), then for purposes of this analysis we will consider Harrington to be a natural gas source. We noted earlier that for natural gas units, there are no practical add-on controls to consider for setting a more stringent SO_2 BART emission limit. Therefore, under this option, we propose that BART for both Harrington units is the burning of pipeline natural gas, as defined at 40 CFR 72.2.[340] Because the conversion to natural gas no later than January 1, 2025, would occur before the deadline to comply with a BART emission limit reflective of the installation of DSI or scrubbers, there is no need to evaluate whether an interim SO_2 emission limit is necessary prior to the conversion to natural gas. Additionally, the visibility benefits of a conversion to natural gas would be greater than with the limits we are proposing based on either SDA or DSI. We are interested in comments on this option and specifically invite Harrington to provide comments as to their interest in this option.

3. Welsh Unit 1

In reviewing the modeling results for Welsh Unit 1, we conclude that the installation of a wet FGD or SDA will provide significant visibility benefits. As discussed in Section VII.A.1, we modeled Welsh Unit 1 with both CALPUFF and CAMx. The visibility benefits for Welsh are summarized in Tables 21 and 22.

TABLE 21—CALPUFF-PREDICTED WET FGD AND SDA VISIBILITY BENEFITS AT WELSH UNIT 1 *

Class I area	2016–18 baseline				High control scenarios (WFGD/SDA)				
	2016 dv	2017 dv	2018 dv	Cumulative 2016–18 # of days with impacts ≥0.5 dv/ ≥1.0 dv	Visibility benefit at Class I area (dv) from baseline (WFGD/SDA)			Cumulative 2016–2018 # of days with impacts ≥0.5 /≥1.0 dv	
					2016 dv	2017 dv	2018 dv	WFGD	SDA
Caney Creek	0.70	0.94	0.96	77/13	0.28/0.27	0.37/0.35	0.53/0.53	18/1	18/1
Upper Buffalo	0.36	0.49	0.60	16/0	0.25/0.24	0.33/0.32	0.42/0.40	0/0	1/0
Wichita Mountains	0.25	0.35	0.24	3/0	0.17/0.16	0.28/0.26	0.16/0.16	0/0	1/0

* Benefit of control values are the decrease in deciview between baseline and the control scenario. Number of days is the number of days that are equal or greater than 0.5 and 1.0 dv after controls.

The Welsh facility is within 450 km of three Class I areas (Caney Creek, Wichita Mountains, and Upper Buffalo), and therefore, within the range that the CALPUFF model has been used for assessing visibility impacts in BART analyses. CALPUFF results for Welsh indicate that installation of wet FGD or SDA resulted in a reduction of visibility impacts by 45 percent (0.39 dv average visibility benefit) and 44 percent (0.38 dv average visibility benefit), respectively from the baseline (0.86 dv) at the highest impacted Class I area (Caney Creek), and an average reduction of visibility impacts across the three Class I areas of 57 percent and 55 percent respectively.

Using three years (2016–2018) CALPUFF modeling results, we assessed the annual number of days when the facility impacts were greater than the 0.5 dv and 1.0 dv threshold at each of the Class I areas and then summed this value for all Class I areas to determine the total number of days in the 2016–2018 modeled period where visibility impacts were above 0.5 dv and 1.0 dv. These results indicate that the installation of wet FGD or SDA will eliminate 78 days (81 percent decrease) and 76 days (79 percent decrease) respectively where visibility is greater than 0.5 dv and 12 days (92 percent decrease) where visibility is greater than 1.0 dv over the three modeled years for these three Class I areas. Comparing the CALPUFF modeled improvement with the installation of wet FGD versus SDA on Unit 1 indicates the visibility benefits are very similar (within 1.3–5.4 percent of each other).

TABLE 22—CAMx-PREDICTED WET FGD (SDA) VISIBILITY BENEFITS AT WELSH UNIT 1

Welsh Unit 1	Baseline			Controlled		
Class I area	Impact (dv) on the maximum impact day	Avg impact (dv) for the top 10 days	Number of days ≥0.5/ ≥1.0 dv	Visibility improvement (dv) on the maximum impact day *	Avg visibility improvement (dv) for the top 10 days *	Impacted number of days ≥0.5/≥1.0 dv
Caney Creek	1.58	1.11	27/6	1.08 *(1.02)*	0.83 *(0.79)*	0/0
Wichita Mountains	1.54	0.71	6/2	1.34 *(1.29)*	0.60 *(0.57)*	0/0
Upper Buffalo	1.12	0.68	8/1	0.83 *(0.79)*	0.53 *(0.50)*	0/0
Cumulative (all Class I areas)	6.67	3.97	46/9	5.27	3.21	0/0

* Secondary values in parentheses indicate estimated visibility benefits for SDA.

[339] 70 FR at 39167.

[340] ''Pipeline natural gas'' means a naturally occurring fluid mixture of hydrocarbons (*e.g.,* methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a pipeline. Pipeline natural gas contains 0.5 grains or less of total sulfur per 100 standard cubic feet. This is equivalent to an SO_2 emission rate of 0.0006 lb/MMBtu. Additionally, pipeline natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 Btu per standard cubic foot. 40 CFR 72.2.

Table 22 displays the visibility benefits predicted by CAMx with wet FGD control levels applied to Welsh Unit 1. We also present the estimated benefits of SDA (shown in parentheses). Since SDA is slightly less effective at reducing SO_2 emissions than wet FGD, the comparative results between SDA and wet FGD are consistent with the difference in control efficacy, with a difference between wet FGD and SDA on the maximum impacted day of 0.06 dv at Caney Creek and 0.05 dv at Wichita Mountains and an average top 10 days difference of 0.03–0.04 dv at each of the top three Class I areas.

CAMx modeling results indicate that wet FGD on Welsh Unit 1 will eliminate all days impacted by the unit over 0.5 dv at all Class I areas, from 46 days in the baseline to zero with wet FGD, and SDA controls eliminate all but one day with impacts over 0.5 dv. At the most impacted Class I areas, wet FGD control results in visibility improvements of up to 1.35 dv on the maximum impacted day at Wichita Mountains and 1.29 dv with SDA control compared to the baseline maximum impact of 1.54 dv. Similarly, wet FGD control results in visibility improvements of up to 1.08 dv on the maximum impacted day at Caney Creek and 1.02 dv with SDA control compared to the baseline maximum impact of 1.58 dv. For the average of the top 10 most impacted days, wet FGD control results in 0.82 dv, while SDA results in 0.79 dv visibility improvements at Caney Creek (baseline impact 1.11 dv). For the average of the top 10 most impacted days, wet FGD control results in 0.60 dv, while SDA results in 0.57 dv visibility improvements at Wichita Mountains (baseline impact 0.71 dv).

Overall, there is a cumulative improvement to the average of the top 10 days of approximately 3.2 dv with wet FGD across all impacted Class I areas and approximately 5.3 dv cumulative improvement on the maximum impacted day. The 2023 BART Modeling TSD shows that DSI control achieved approximately 39 percent average improvement in visibility, while wet FGD averaged 79 percent overall visibility improvement. At Caney Creek, DSI results in improvement on the maximum impacted day of 0.48 dv compared to 1.08 dv for wet FGD and 1.02 dv for SDA. At Wichita Mountains, DSI results in improvement on the maximum impacted day of 0.69 dv compared to 1.35 dv for wet FGD and 1.29 dv for SDA. At Caney Creek, the baseline had 27 days over 0.5 dv and 6 days over 1.0 dv, but with DSI these number of days were reduced to 8 and 1, respectively, and further reduced with wet FGD to zero days over 0.5 dv and zero days over 1.0 dv. At Wichita Mountains, the baseline had 6 days over 0.5 dv and 2 days over 1.0 dv, but with DSI these number of days were reduced to 2 and zero, respectively, and further reduced with wet FGD to zero days over 0.5 dv and zero days over 1.0 dv.

We conclude that both SDA and wet FGD are cost-effective at $4,370/ton and $4,497/ton (respectively) and remain within a range that we have previously found to be acceptable. Wet FGD is less cost-effective than SDA and as discussed in the preceding paragraphs, it would have only a slight additional visibility benefit over SDA. As discussed earlier, in weighing the factors between SDA and wet FGD, we determined the additional visibility benefits did not outweigh the additional cost, water requirements, and wastewater treatment requirements associated with wet FGD. DSI at 50 percent control is more cost-effective but results in much less visibility benefit. We consider the significant visibility benefits that will result from the installation of SDA at Welsh Unit 1 to justify the cost, and therefore, we propose that SO_2 BART for Welsh Unit 1 should be based on the installation of SDA at an emission limit of 0.06 lb/MMBtu based on a 30 BOD.

We recognize that at $4,370/ton, the cost of SDA for Welsh Unit 1 is in the upper range of cost-effectiveness of controls found to be acceptable in other BART actions nationwide. Nevertheless, we consider it to be cost-effective and provides for significant visibility benefit. Since BART is defined as an emission limitation,[341] sources have the flexibility to decide what controls to install and implement so long as they comply with the BART emission limitations and associated requirements that are promulgated. As discussed in Section VIII.A, based on available DSI cost information, some EGUs with an installed baghouse may be able to achieve 90+ percent SO_2 control efficiency using DSI with sodium-based sorbents. Therefore, Welsh Unit 1 could potentially comply with our proposed SO_2 emission limit of 0.06 lb/MMBtu with DSI operated at a high SO_2 control level, but this would need to be confirmed with site-specific performance testing. If the unit is capable of meeting this SO_2 emission limit with DSI, this control technology is likely to be even more cost-effective than SDA.

As discussed in Sections VII.B.2.a and VII.B.3.a, we also invite comments on the range and maximum control efficiency that can be achieved with DSI at Welsh Unit 1 and estimates of the range of associated costs. We are especially interested in any site-specific DSI testing for Welsh Unit 1 to determine the range and maximum control efficiency that can be achieved with DSI at this unit. Any data to support the control efficiency range, maximum control efficiency, and cost of DSI for the unit should be submitted along with those comments. We will further consider site-specific information provided to us during the public comment period in making our final decision on SO_2 BART and potentially re-evaluate DSI for this particular unit.

4. W. A. Parish Units WAP4, WAP5 & WAP6

W. A. Parish Unit WAP4 is the only gas-fired unit we determined to be subject to BART. Gas-fired EGUs have inherently low SO_2 emissions and there are no known SO_2 controls that can be evaluated. While we must assign SO_2 BART determinations to the gas-fired unit, there are no practical add-on controls to consider for setting a more stringent BART emission limit. As explained earlier in Section VII.B.1.c, the BART Guidelines state that if the most stringent controls are made federally enforceable for BART, then the otherwise required analyses leading up to the BART determination can be skipped. As there are no appropriate add-on controls and the status quo reflects the most stringent control level, we are proposing that SO_2 BART for W. A. Parish Unit WAP4 is to limit fuel to pipeline natural gas, as defined at 40 CFR 72.2.[342]

In evaluating W. A. Parish Units WAP5 and WAP6, we conclude that the installation of wet FGD or SDA will result in significant visibility benefits. We summarize some of these visibility benefits in Table 23.

[341] See 40 CFR part 51, Appendix Y—Guidelines For BART Determinations Under the Regional Haze Rule, section IV.A.

[342] As provided for in 40 CFR 72.2, pipeline natural gas contains 0.5 grains or less of total sulfur per 100 standard cubic feet. This is equivalent to an SO_2 emission rate of 0.0006 lb/MMBtu.

TABLE 23—CAMx PREDICTED VISIBILITY BENEFIT OF WET FGD (SDA) AT W. A. PARISH

W. A. Parish	Baseline			Controlled		
Class I area	Impact (dv) on the maximum impact day	Avg impact (dv) for the top 10 days	Number of days ≥0.5/≥1.0 dv	Visibility improvement (dv) on the maximum impact day *	Avg visibility improvement (dv) for the top 10 days *	Impacted number of days ≥0.5/≥1.0 dv
W. A. Parish WAP5						
Wichita Mountains	2.01	0.83	12/1	1.86 *(1.80)*	0.77 *(0.75)*	0/0
Caney Creek	1.57	1.09	36/6	1.38 *(1.36)*	0.97 *(0.94)*	0/0
Breton	1.08	0.52	4/1	0.94 *(0.92)*	0.47 *(0.45)*	0/0
Cumulative (all Class I areas)	8.82	5.18	86/10	7.93	4.71	0/0
W. A. Parish WAP6						
Wichita Mountains	2.24	0.93	15/1	2.07 *(2.01)*	0.86 *(0.84)*	0/0
Caney Creek	1.75	1.22	47/9	1.52 *(1.50)*	1.08 *(1.05)*	0/0
Breton	1.21	0.58	4/2	1.05 *(1.02)*	0.52 *(0.50)*	0/0
Cumulative (all Class I areas)	9.86	5.80	119/15	8.81	5.27	0/0
W. A. Parish WAP5 and WAP6						
Wichita Mountains	3.97	1.71	35/12	3.61	1.56	0/0
Caney Creek	3.13	2.22	86/38	2.59	1.91	1/0
Breton	2.21	1.08	12/4	1.89	0.96	0/0
Cumulative (all Class I areas)	17.96	10.72	269/91	15.66	9.56	1/0

* Secondary values in parentheses indicate estimated visibility benefits for SDA

Table 23 displays the visibility benefits predicted by CAMx modeling with wet FGD control levels applied to Units WAP5 and WAP6. We also present the estimated benefits of SDA (shown in parentheses) for each unit individually. Since SDA is slightly less effective at reducing SO_2 emissions than wet FGD, the comparative results between SDA and wet FGD are consistent with the difference in control efficacy, with a maximum difference between wet FGD and SDA on the maximum impacted day of 0.06 dv at Wichita Mountains for each unit (0.02–0.03 dv for Caney Creek and Breton) and an average top 10 days difference of 0.03 dv at Caney Creek (0.02 dv at Wichita Mountains and Breton) for each unit, with SDA always showing marginally less improvement from the baseline. These values indicate that SDA per unit results in approximately 2–4 percent less benefit than wet FGD on a per unit basis.

CAMx modeling results indicate that wet FGD installed on each of Units WAP5 and WAP6 will eliminate all days impacted by each unit over 0.5 dv at all Class I areas, and our estimates for SDA control also show no days over 0.5 dv at any Class I areas. When considering the combined impacts from all three units taken together with wet FGD on WAP5 and WAP6, the CAMx results predict one day to exceed the 0.5 dv threshold (at Caney Creek).[343] We would expect similar results in looking at SDA for Units WAP5 and WAP6 as the visibility differences for SDA and wet FGD are small. Overall, there is a cumulative reduction from 269 days over 0.5 dv in the baseline to a total of just one day over the threshold with wet FGD across all impacted Class I areas.

Installation of wet FGD on both units results in 3.61 dv improvement (91 percent reduction of 3.97 dv baseline) on the maximum impact day at Wichita Mountains and a 1.56 dv improvement (91 percent reduction of 1.71 dv baseline) on the top 10 average days at Wichita Mountains. Installation of wet FGD on both units results in 2.59 dv improvement (83 percent reduction of 3.13 dv baseline) on the maximum impact day at Caney Creek and a 1.91 dv improvement (86 percent reduction of 2.22 dv baseline) on the top 10 average days at Caney Creek. SDA visibility benefits on a unit basis result in 95 percent or more of the visibility benefit of wet FGD on a unit basis. At the most impacted Class I areas, either wet FGD or SDA on each unit will each result in visibility improvements of more than 1.8 dv per unit at Wichita Mountains, and the top 10 days average visibility improvement for the individual units are more than 0.9 dv at Caney Creek for each unit with wet FGD or SDA. Across all impacted Class I areas, the top 10 days average improvement from all three units combined is predicted to be approximately 9.5 dv, or approximately 89 percent reduction in visibility impairment due to wet FGD controls or SDA. As provided in Section VII.B.4, DSI operated at 50 percent control (''low control scenario'') results in 43 percent visibility improvement for the overall three units, whereas wet FGD visibility benefits result in 87 percent improvement at the most impacted Class I areas for the three units and the cumulative 15 Class I areas included in the modeling.

We conclude that both SDA and wet FGD are cost-effective at $3,044/ton and $3,074/ton (respectively) for Unit WAP5 and $2,651/ton and $2,717/ton (respectively) for Unit WAP6 and remain well within a range that we have previously found to be acceptable. While DSI at 50 percent control is more cost-effective at $2,262/ton for Unit WAP5 and $2,244/ton for Unit WAP6, it results in less visibility benefit. The incremental cost-effectiveness of SDA (going from DSI at 50 percent control efficiency to SDA) is $4,006/ton for Unit WAP5 and $3,155/ton for Unit WAP6, which we consider to be reasonable. Thus, we conclude that the resulting visibility benefit offered by scrubbers outweighs the possible advantage DSI at 50 percent control may hold in cost-effectiveness.

[343] W. A. Parish Unit WAP4 is a gas-fired unit for which we are locking in the requirement to burn pipeline quality natural gas.

Wet FGD is slightly less cost-effective than SDA and we estimate based on scaling of our CAMx modeling results that it would have only a slight additional visibility benefit over SDA. As discussed earlier, in weighing the factors between SDA and wet FGD, we determined the additional visibility benefits did not outweigh the additional cost, water requirements and wastewater treatment requirements associated with wet FGD. We consider the cost of SDA at the two W. A. Parish units to be justified by the significant visibility benefits that will result. We therefore propose that SO_2 BART for W. A. Parish Units WAP5 and WAP6 should be based on the installation of SDA at an emission limit of 0.06 lb/MMBtu based on a 30 BOD.

B. SO_2 BART for Coal-Fired Units With Existing Scrubbers

1. Martin Lake Units 1, 2, and 3

The BART Guidelines state that underperforming scrubber systems should be evaluated for upgrades.[344] Other than upgrading the existing scrubbers, all of which are wet FGDs, there are no competing control technologies that could be considered for these units at Martin Lake. These units were modeled with both CALPUFF and CAMx. We summarize some of these visibility benefits from upgrading Martin Lake's existing scrubbers in Tables 24 and 25.

TABLE 24—CALPUFF-PREDICTED SCRUBBER UPGRADE VISIBILITY BENEFITS AT MARTIN LAKE

Class I area	2016–18 Baseline impacts				Scrubber upgrades			
	2016 dv	2017 dv	2018 dv	Cumulative 2016–2018 # of days with impacts ≥0.5 dv/≥1.0 dv	Visibility benefit at class I area (dv) from baseline			Cumulative 2016–2018 # of days with impacts ≥0.5 dv/≥1.0 dv
					2016 dv	2017 dv	2018 dv	
Caney Creek	3.28	3.60	3.35	338/215	2.12	2.36	2.16	133/44
Upper Buffalo	2.12	2.54	2.27	212/115	1.58	1.90	1.72	33/8
Wichita Mountains	1.45	1.07	1.15	79/36	1.21	0.89	0.91	5/2
Cumulative	6.84	7.21	6.78	629/366	4.90	5.15	4.79	171/54

In evaluating Martin Lake, there are three Class I areas (Caney Creek, Upper Buffalo, and Wichita Mountains) within the typical 450 km range that CALPUFF has been used for assessing visibility impacts. The modeled scrubber upgrades result in large visibility improvements of over 2.2 dv at Caney Creek and 1.7 dv at Upper Buffalo. Visibility benefits at Wichita Mountains also exceed 1.0 dv. CALPUFF results for Martin Lake indicate that upgrading the scrubbers resulted in a reduction of visibility impacts by 65 percent from the baseline at the highest impacted Class I area (Caney Creek), and an average reduction of visibility impacts at the three Class I areas of 71 percent. Using the three years (2016–2018) of CALPUFF modeling results, we assessed the annual average number of days, averaged across the three years, when the facility impacts were greater than 0.5 dv at each Class I area; we also looked at the cumulative number of days summed across the three years at all the Class I areas (three in this case). The reduction in the number of days (annual average) was calculated using the cumulative value of the number of days (three-year total) over the 0.5 dv threshold across the three Class I areas for the baseline scenario minus the cumulative number of days (three-year total) over the threshold for the control scenario. For the three Class I areas, 2016–2018 CALPUFF modeling results indicate that upgraded scrubbers on the three units will eliminate 152 days annually (3-year average), or 458 days cumulatively across the 3 years, when the facility has impacts greater than 0.5 dv in the baseline. The same analysis for the 1.0 dv threshold, as reported in Table 24, has 104 days (312 days total) reduced on annual average. CALPUFF modeling results indicate large improvements at the individual Class I areas and the cumulative improvement of almost 5 dv; these scrubber upgrades markedly improve the overall cumulative predicted visibility by approximately 71 percent from the baseline.

Table 25 includes each affected Martin Lake unit and the combined facility along with the resulting CAMx-modeled visibility benefits from upgrading Martin Lake's existing scrubbers.

TABLE 25—CAMX PREDICTED VISIBILITY BENEFIT OF SCRUBBER UPGRADES FOR MARTIN LAKE

Martin Lake	Baseline			Controlled		
Class I area	Impact (dv) on the maximum impact day	Avg impact (dv) for the top 10 days	Number of days ≥0.5/≥1.0 dv	Visibility improvement (dv) on the maximum impact day	Avg visibility improvement (dv) for the top 10 days	Impacted number of days ≥0.5/≥1.0 dv
Martin Lake Unit 1						
Caney Creek	2.60	1.98	74/22	2.00	1.56	2/0
Wichita Mountains	2.08	1.01	17/3	1.76	0.85	0/0
Upper Buffalo	1.93	1.39	48/8	1.66	1.18	0/0
Cumulative (all Class I areas)	12.39	7.90	197/38	10.36	6.64	2/0
Martin Lake Unit 2						
Caney Creek	2.54	1.94	72/22	1.94	1.52	2/0

[344] 70 FR 39171 (July 6, 2005).

TABLE 25—CAMx PREDICTED VISIBILITY BENEFIT OF SCRUBBER UPGRADES FOR MARTIN LAKE—Continued

Martin Lake	Baseline			Controlled		
Class I area	Impact (dv) on the maximum impact day	Avg impact (dv) for the top 10 days	Number of days ≥0.5/≥1.0 dv	Visibility improvement (dv) on the maximum impact day	Avg visibility improvement (dv) for the top 10 days	Impacted number of days ≥0.5/≥1.0 dv
Wichita Mountains	2.03	0.99	17/3	1.71	0.82	0/0
Upper Buffalo	1.89	1.36	44/8	1.62	1.14	0/0
Cumulative (all Class I areas)	12.09	7.71	188/38	10.06	6.44	2/0
Martin Lake Unit 3						
Caney Creek	2.81	2.14	85/24	2.23	1.73	2/0
Wichita Mountains	2.24	1.09	18/3	1.93	0.93	0/0
Upper Buffalo	2.09	1.51	51/12	1.84	1.30	0/0
Cumulative (all Class I areas)	13.44	8.59	223/48	11.45	7.34	2/0
Martin Lake Units 1, 2, and 3						
Caney Creek	6.69	5.27	150/101	5.00	4.07	32/7
Wichita Mountains	5.49	2.83	51/27	4.57	2.35	3/0
Upper Buffalo	5.16	3.83	111/70	4.39	3.21	7/0
Cumulative (all Class I areas)	33.79	22.16	521/301	27.91	18.44	47/7

Table 25 shows that the Martin Lake units individually cause or contribute to visibility impairment at Wichita Mountains, Caney Creek, and Upper Buffalo on a large number of days. CAMx predicts baseline impacts for these combined three units to be more than the 0.5 dv visibility threshold 150 days of the year at Caney Creek, 111 days of the year at Upper Buffalo, 51 days of the year at Wichita Mountains, and in total for 209 days per year for the other 12 Class I areas modeled. The average visibility impact across the top 10 days for the combined units is more than 5.2 dv at Caney Creek and more than 3.8 dv at Upper Buffalo. CAMx modeling results indicate that upgrades to Martin Lake's wet FGD scrubbers to 95 percent control efficiency installed on each of the units will eliminate all but two days impacted by each individual unit over 0.5 dv at all Class I areas. When considering the combined impacts from all three units, the modeling results show an overall (across all impacted Class I areas) reduction from 521 days over 0.5 dv in the baseline to a total of 47 days over the threshold after the scrubber upgrades are installed, for an overall reduction of more than 90 percent in the number of days over the threshold. With the modeled scrubber upgrades, the number of days impacted over 1.0 dv are reduced from 101 days to 7 days at Caney Creek. Days over the 1.0 dv threshold at all other Class I areas are eliminated, decreasing from 200 in the baseline to zero with the scrubber upgrades. At the most impacted Class I Areas, the scrubber upgrades on each unit will each result in visibility improvements of approximately 2.0 dv on the most impacted days at Caney Creek, and the top 10 days average visibility improvement for the individual units is more than 1.5 dv at Caney Creek. Across all 15 Class I areas, the top 10 days average impact from all three units combined dropped from baseline of 22.2 dv to 3.7 dv after control upgrades, for an overall cumulative improvement of approximately 83 percent reduction due to improved scrubber efficiency. Similarly, across all 15 Class I areas, the maximum daily impact from scrubber upgrades results in a visibility improvement of 27.91 dv compared to the 33.79 dv baseline total, which is a reduction of 83 percent.

As we state elsewhere in this proposal, we estimate scrubber upgrades at the Martin Lake units to be very cost-effective and less than $1,200/ton. We conclude that these scrubber upgrades are very cost-effective and result in very significant visibility benefits, significantly reducing the impacts from these units and reducing the number of days that Class I areas are impacted over 1.0 dv and 0.5 dv. We propose SO_2 BART for each Martin Lake unit should be to upgrade the wet FGD scrubbers to a control efficiency of 95 percent, with an emission limit of 0.08 lb/MMBtu on a 30 BOD basis. This cost analysis, the reasons set forth in previous sections regarding the overall SO_2 emissions impact of these units, and the modeled benefits, support this proposed BART determination.

2. Fayette Units 1 and 2

Fayette Units 1 and 2 are currently equipped with high performing wet FGDs. Both units have demonstrated the ability to maintain a SO_2 30 Boiler Operating Day (BOD) average below 0.04 lb/MMBtu for years at a time.[345] As discussed in Section VII.B.2.a, retrofit wet FGDs should be evaluated at 98 percent control or no less than 0.04 lb/MMBtu. Table 26 shows the visibility impacts for the baseline emissions, the current permitted emission limit (which is greater than the baseline emission rate), and an emission limit of 0.04 lb/MMBtu (which is representative of controlled emissions with wet FGD).

[345] See our 2023 BART FIP TSD for additional information and graphs of this data.

TABLE 26—CAMx-PREDICTED VISIBILITY IMPACTS OF BASELINE, PERMIT LIMITS, AND WET FGD LIMIT OF 0.04 LB/MMBTU FOR FAYETTE UNITS 1 AND 2

Fayette Units 1 and 2	2016 Baseline impacts		Permitted limit (0.2 lb/MMBtu)		Wet FGD (0.04 lb/MMBtu)	
Class I area	Impact at Class I area (dv)	Number of days ≥0.5 dv/ ≥1.0 dv	Impact at Class I area (dv)	Number of days >0.5 dv/ number of days >1.0 dv	Impact at Class I area (dv)	Number of days ≥0.5 dv/ ≥1.0 dv
Caney Creek	0.52	1/0	1.04	11/1	0.52	1/0
Wichita Mountains	0.34	0/0	1.02	3/1	0.31	0/0
Upper Buffalo	0.33	0/0	0.73	5/0	0.34	0/0
Cumulative (all 15 Class I areas)	2.24	1/0	5.31	21/2	2.12	1/0

Fayette modeling shows increased visibility impacts when modeling the existing permit limit (Title V permit level of 0.2 lb/MMBtu to meet NSPS UUUUU). At this higher permitted rate, the Fayette source would have visibility impacts greater than 1 dv at Caney Creek and Wichita Mountains. However, Fayette routinely emits at rates less than this permit limit. We also modeled wet FGD at 0.04 lb/MMBtu, which these units already consistently meet on a 30-day BOD basis. The results are very similar to baseline modeling results reflecting the maximum 24-hr emissions from 2016–2020, but did result in a slight overall benefit from baseline conditions. Therefore, we propose that additional scrubber upgrades for Fayette are not necessary and that Fayette Units 1 and 2 maintain a 30 BOD rolling average SO_2 emission rate of 0.04 lb/MMBtu. We believe that based on their demonstrated ability to maintain an emission rate below this value on a 30 BOD basis, these units can consistently achieve this emission level.

C. PM BART

As discussed in Section VI.B, we propose to disapprove the portion of the Texas Regional Haze SIP that sought to address the BART requirement for EGUs for PM. We present our analysis of the BART factors and the potential costs and visibility benefits of PM controls in Section VII.B.5. All the coal-fired units are either currently fitted with a baghouse, an ESP and a polishing baghouse, or an ESP. As part of our BART determination, we propose to conclude that the cost of retrofitting the subject units (Harrington Unit 061B, Martin Lake Units, and Fayette Units) with a baghouse would be extremely high compared to the visibility benefit for any of the units currently fitted with an ESP. The BART Guidelines state it is permissible to rely on MACT standards for purposes of BART unless there are new technologies subsequent to the MACT standards which would lead to cost-effective increases in the level of control. Because the costs of installing a baghouse would be extremely high, we propose that PM BART for the coal-fired units is an emission limit of 0.030 lb/MMBtu along with work practice standards. This limit is consistent with the MATS Rule, which establishes an emission standard of 0.030 lb/MMBtu filterable PM (as a surrogate for toxic non-mercury metals) as representing MACT for coal-fired EGUs.

For the gas-fired BART unit, W. A. Parish Unit WAP4, there are no appropriate add-on controls and the status quo reflects the most stringent controls. We are proposing to make the requirement to burn pipeline natural gas federally enforceable. We are proposing that PM BART for W. A. Parish Unit WAP4 is to limit fuel to pipeline natural gas, as defined at 40 CFR 72.2.

IX. Proposed Action

A. Regional Haze

We are proposing to withdraw the Texas SO_2 Trading Program set forth in 40 CFR part 97 Subpart FFFFF, which constitutes the FIP provisions the EPA previously promulgated to address SO_2 BART obligations for EGUs in Texas. In its place, we are proposing to promulgate a FIP as described in this notice and summarized in this section to address the SO_2 BART requirements for those BART-eligible sources participating in the Texas SO_2 Trading Program. Additionally, as described in Section VI, we are proposing that our prior approval of the portion of the Texas Regional Haze SIP related to PM BART for EGUs was in error and are correcting that through disapproving that portion of the SIP and promulgating source specific BART requirements to address the deficiency. Our proposed FIP includes SO_2 and PM BART emission limits for 12 EGUs located at 6 different facilities.

1. SO_2 BART

We propose that SO_2 BART for the subject-to-BART units is the following SO_2 emission limits to be met on a 30 BOD period:

TABLE 27—PROPOSED SO_2 BART EMISSION LIMITS

Unit	Proposed SO_2 emission limit (lb/MMBtu)
Scrubber Upgrades	
Martin Lake Unit 1	0.08
Martin Lake Unit 2	0.08
Martin Lake Unit 3	0.08
Emission Limit as BART	
Fayette Unit 1	0.04
Fayette Unit 2	0.04
W A. Parish Unit WAP4*	.....
Scrubber Retrofits	
Harrington 061B	0.06
Harrington 062B	0.06
Coleto Creek Unit 1	0.06
W. A. Parish WAP5	0.06
W. A. Parish WAP6	0.06
Welsh Unit 1	0.06
DSI	
Harrington 061B	0.27 (in the alternative)

* For Unit WAP4, BART is to limit fuel use to pipeline natural gas, as defined at 40 CFR 72.2. As provided for in 40 CFR 72.2, pipeline natural gas contains 0.5 grains or less of total sulfur per 100 standard cubic feet. This is equivalent to an SO_2 emission rate of 0.0006 lb/MMBtu.

We propose that the following sources comply with these limits within five years of the effective date of our final rule: Coleto Creek Unit 1; Harrington Units 061B (for a limit consistent with scrubber retrofit) and 062B; W. A. Parish Units WAP5 and WAP6; and Welsh Unit 1. This is the maximum amount of time allowed under the Regional Haze Rule for BART compliance. We based our cost analysis on the installation of wet FGD and SDA scrubbers for these units, and in past actions we have typically required that scrubber retrofits under BART be operational within five years.[346]

[346] *See* 76 FR 81729, 81758 (December 28, 2011) and 81 FR 66332, 66416 (September 27, 2016), where we promulgated regional haze FIPs for Oklahoma and Arkansas, respectively. These FIPs required BART SO_2 emission limits on coal-fired EGUs based on new scrubber retrofits with a compliance date of no later than five years from the effective date of the final rule.

We are proposing an alternative BART limit based on DSI at 50 percent for Harrington Unit 061B with a proposed compliance date within two years of the effective date of our final rule. We believe that two years is appropriate as the installation of DSI systems is less complex and time consuming than the construction of a scrubber. We also propose to require a DSI performance evaluation, as more fully described in Section IX.A.3, within one year of the effective date of our final rule. In Section VIII.A.2 we also provide an option for Harrington to agree as part of this FIP to convert to natural gas by no later than January 1, 2025.

For Martin Lake Units 1, 2, and 3, we propose that compliance with these limits be within three years of the effective date of our final rule. We believe that three years is appropriate for these units, as we based our cost analysis on upgrading the existing wet FGD scrubbers of these units, which we believe to be less complex and time consuming than the construction of a new scrubber.

For Fayette Units 1 and 2, we propose that compliance with these limits be within one year. We believe that one year is appropriate for these units because the Fayette units have already demonstrated their ability to meet these emission limits.

2. Potential Process for Alternative Scrubber Upgrade Emission Limits

In our 2023 BART FIP TSD, we discuss how we calculated the SO_2 removal efficiency of the units we analyzed for scrubber upgrades. Since we do not have CEMS data for the inlet of the scrubbers (we only have CEMS data for the outlet of the scrubbers) and we do not have recent site-specific testing from the facility to more accurately determine the current control efficiency of the scrubbers, we estimated the current removal efficiency of each scrubber using formulas. These formulas utilize the reported sulfur content and tonnages of the fuels burned at each unit to calculate the theoretical uncontrolled SO_2 emissions. The calculated theoretical uncontrolled SO_2 emissions and CEMS data for the scrubber outlet SO_2 emissions are then used to calculate scrubber efficiency. Given a lack of updated source-specific information resulting in an estimated control efficiency based on available fuel usage and SO_2 emissions data, we cannot assure accuracy in our quantification of scrubber efficiency. However, despite the potential for inaccurate information regarding scrubber efficiency, based on the results of our scrubber upgrade cost analysis, we do not believe that any such error in calculating the true tons of SO_2 removed affects our proposed determination that scrubber upgrades are cost-effective. Even if we were to make reasonable adjustments in the tons removed to account for any potential error in our scrubber efficiency calculation, we would still propose to upgrade these SO_2 scrubbers. We believe we have demonstrated that upgrading an underperforming SO_2 scrubber is one of the most cost-effective pollution control upgrades a coal-fired power plant can implement to improve the visibility at Class I areas. However, our proposed FIP does specify an SO_2 emission limit that is based on 95 percent removal. This is below the upper end of what an upgraded wet SO_2 scrubber can achieve, which is 98–99 percent, as we have noted in our 2023 BART FIP TSD. We believe that a 95 percent control assumption provides an adequate margin of error for the units for which we have proposed scrubber upgrades, such that they should be able to comfortably attain the emission limits we have proposed. However, for the owner of any unit that disagrees with us on this point, we propose the following:

(1) The affected unit should comment why it believes it cannot attain the SO_2 emission limit we have proposed, based on a scrubber upgrade that includes the kinds of improvements (*e.g.,* elimination of bypass, wet stack conversion, installation of trays or rings, upgraded spray headers, upgraded ID fans, using all recycle pumps, etc.) typically included in a scrubber upgrade.

(2) After considering those comments, and responding to all relevant comments in a final rulemaking action, should we still require a scrubber upgrade in our final FIP we will provide the company the following option in the FIP to seek a revised emission limit after taking the following steps:

(a) Install a CEMS at the inlet to the scrubber.

(b) Pre-approval of a scrubber upgrade plan conducted by a third party engineering firm that considers the kinds of improvements (*e.g.,* elimination of bypass, wet stack conversion, installation of trays or rings, upgraded spray headers, upgraded ID fans, using all recycle pumps, etc.) typically performed during a scrubber upgrade. The goal of this plan will be to maximize the unit's overall SO_2 removal efficiency.

(c) Installation of the scrubber upgrades.

(d) Pre-approval of a performance testing plan, followed by the performance testing itself.

(e) A pre-approved schedule for 2.a through 2.d.

(f) Should we determine that a revision of the SO_2 emission limit is appropriate, we will have to propose a modification to the BART FIP after it has been promulgated. It should be noted that any proposal to modify the SO_2 emission limit will be based largely on the performance testing and may result in a proposed increase or decrease of that value.

3. DSI Performance Evaluation for Harrington Unit 061B

We are proposing that SO_2 BART for Harrington Unit 061B should be based on the installation of SDA at an emission limit of 0.06 lb/MMBtu based on a 30 BOD and in the alternative, we are proposing that SO_2 BART should be based on DSI at 50 percent control efficiency at an emission limit of 0.27 lb/MMBtu based on a 30 BOD with the requirement to conduct a DSI performance evaluation and submit to the EPA no later than one (1) year from the effective date of our final rule. We believe Unit 061B is likely capable of achieving an SO_2 emission limit of 0.27 lb/MMBtu with DSI, but are not certain whether the unit could achieve a lower emission limit on a 30 BOD or what the potential impacts to PM emissions could be at higher injections rates necessary for higher control efficiencies using the existing ESP. The purpose of the DSI performance evaluation is to determine the lowest SO_2 emission rate Unit 061B would be able to sustainably achieve on a 30 BOD with DSI as well as the potential control efficiencies achievable with upgraded particulate removal and to determine how compliance with such an emission rate would impact our cost estimates for DSI. Therefore, as part of the performance evaluation, we are also proposing to require an estimate of the costs of DSI for each of the three control scenarios specified in 1.a through 1.c.

Should we require an SO_2 emission limit based on DSI for Harrington Unit 061B in our final FIP, we are proposing the following requirements for a DSI performance evaluation:

(1) The performance evaluation must be conducted by a third-party engineering firm and must determine the potential lowest sustainable SO_2 emission rate on a 30 BOD with DSI for each of the following control scenarios:

(a) DSI with the existing ESP for particulate removal;

(b) DSI with a new ESP installation for particulate removal;

(c) DSI with a new fabric filter installation for particulate removal.

(2) The performance evaluation must include an estimate of the costs for each of the three control scenarios specified in 1.a through 1.c. The cost estimates must include a detailed breakdown of the capital costs and annual operation and maintenance costs for each control scenario as well as an estimate of the annual SO_2 emissions reductions under each control scenario. The cost estimates should adhere to the costing methodologies recommended in the

EPA Air Pollution Control Cost Manual.[347]

(3) The facility must submit a detailed report of the performance evaluation and all supporting documentation to the EPA no later than one year from the effective date of our final BART FIP.

Based on the DSI performance evaluation, we will determine whether a revision of the SO_2 emission limit for Harrington Unit 061B is appropriate. Should we determine that a revision of the SO_2 emission limit is appropriate, we will propose a modification to the BART FIP after it has been promulgated.

4. PM BART

We propose that PM BART limits for the coal-fired units, Martin Lake Units 1, 2, and 3; Coleto Creek Unit 1; W. A. Parish Units WAP5 and WAP6; Welsh Unit 1; Harrington Units 061B and 062B; and Fayette Units 1 and 2 are 0.030 lb/MMBtu and work practice standards, shown in Table 28.

TABLE 28—PM BART EMISSIONS STANDARDS AND WORK PRACTICE STANDARDS

Unit type	PM BART proposal
Coal-Fired BART Units.	0.030 lb/MMBtu filterable PM Table 3 to Subpart UUUUU
Gas-Fired Only BART Units.	Pipeline quality natural gas

We propose that compliance with these emissions standards and work practice standards be the effective date of our final rule, as the affected facilities should already be meeting them.

We propose that PM BART for W. A. Parish WAP4 is to limit fuel to pipeline natural gas, as defined at 40 CFR 72.2.

B. CSAPR Better-Than-BART

We propose that, if this proposal to implement source-specific BART requirements at certain EGUs in Texas is finalized, the EPA's analytical basis for our 2017 CSAPR Better-than-BART determination will be restored,[348] which concluded that implementation of CSAPR in the remaining covered States will continue to meet the criteria for a BART alternative. This will also resolve the claims in the 2017 and 2020 petitions for consideration. We are therefore proposing to deny the 2020 petition for partial reconsideration of our September 2017 Final Rule affirming 40 CFR 51.308(e)(4) and our subsequent 2020 denial of a 2017 petition for reconsideration of that rule. This proposed reaffirmation will allow the continued reliance on CSAPR participation as a BART alternative for BART-eligible EGUs for a given pollutant in States whose EGUs continue to participate in a CSAPR trading program for that pollutant.

X. Environmental Justice Considerations

The EPA defines environmental justice (EJ) 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.'' [349] Recognizing the importance of these considerations to local communities, the EPA conducted an environmental justice screening analysis around the location of the facilities associated with this action to identify potential environmental stressors on these communities and the potential impacts of this action. However, the EPA is providing the information associated with this analysis for informational purposes only. The information provided herein is not a basis of the proposed action.

The EPA conducted the screening analyses using EJScreen, an EJ mapping and screening tool that provides the EPA with a nationally consistent dataset and approach for combining various environmental and demographic indicators.[350] The EJScreen tool presents these indicators at a Census block group (CBG) level or a larger user-specified ''buffer'' area that covers multiple CBGs.[351] An individual CBG is a cluster of contiguous blocks within the same census tract and generally contains between 600 and 3,000 people. EJScreen is not a tool for performing in-depth risk analysis, but is instead a screening tool that provides an initial representation of indicators related to EJ and is subject to uncertainty in some underlying data (*e.g.,* some environmental indicators are based on monitoring data which are not uniformly available; others are based on self-reported data).[352] For informational purposes, we have summarized EJScreen data within larger ''buffer'' areas covering multiple block groups and representing the average resident within the buffer areas surrounding the BART facilities. EJScreen environmental indicators help screen for locations where residents may experience a higher overall pollution burden than would be expected for a block group with the same total population in the U.S. These indicators of overall pollution burden include estimates of ambient particulate matter ($PM_{2.5}$) and ozone concentration, a score for traffic proximity and volume, percentage of pre-1960 housing units (lead paint indicator), and scores for proximity to Superfund sites, risk management plan (RMP) sites, and hazardous waste facilities.[353] EJScreen also provides information on demographic indicators, including percent low-income, communities of color, linguistic isolation, and less than high school education.

The EPA prepared EJScreen reports covering buffer areas of approximately 6-mile radii around the BART facilities. From those reports, one BART facility, Harrington Station, showed EJ indices greater than the 80th national percentiles,[354] which were for ozone, lead paint, and RMP facility proximity, none of which are regulated by this proposed action. No BART facility showed an EJ index greater than 80th national percentile for $PM_{2.5}$, diesel particulate matter, air toxics cancer risk, air toxics respiratory hazard index, traffic proximity, hazardous waste site proximity, underground storage tanks,

[347] EPA Air Pollution Control Cost Manual, Seventh Edition, April 2021 available at *https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual.*

[348] 82 FR 45481.

[349] See *https://www.epa.gov/environmentaljustice/learn-about-environmental-justice.*

[350] The EJSCREEN tool is available at *https://www.epa.gov/ejscreen.*

[351] *See https://www.census.gov/programs-surveys/geography/about/glossary.html.*

[352] In addition, EJSCREEN relies on the five-year block group estimates from the U.S. Census American Community Survey. The advantage of using five-year over single-year estimates is increased statistical reliability of the data (*i.e.,* lower sampling error), particularly for small geographic areas and population groups. For more information, see *https://www.census.gov/content/dam/Census/library/publications/2020/acs/acs_general_handbook_2020.pdf.*

[353] For additional information on environmental indicators and proximity scores in EJSCREEN, *see* ''EJSCREEN Environmental Justice Mapping and Screening Tool: EJSCREEN Technical Documentation,'' Chapter 3 and Appendix C (September 2019) at *https://www.epa.gov/sites/default/files/2021-04/documents/ejscreen_technical_document.pdf.*

[354] For a place at the 80th percentile nationwide, that means 20% of the U.S. population has a higher value. EPA identified the 80th percentile filter as an initial starting point for interpreting EJScreen results. The use of an initial filter promotes consistency for EPA programs and regions when interpreting screening results.

or wastewater discharge. The full, detailed EJScreen reports are provided in the docket for this rulemaking.

This action is proposing to promulgate a FIP to address BART requirements that are not adequately satisfied by the Texas Regional Haze SIP. The proposed rule is proposing SO_2 and PM BART limits on EGUs in Texas to fulfill regional haze program requirements and additionally disapproving portions of the Texas Regional Haze SIP related to PM BART. Exposure to PM and SO_2 is associated with significant public health effects. Short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO_2.[355] Exposure to PM can affect both the lungs and heart and is associated with: premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing. People with heart or lung diseases or conditions, children, and older adults are the most likely to be affected by PM exposure.[356] Therefore, we expect that these requirements for EGUs in Texas, if finalized, and resulting emissions reductions will contribute to reduced environmental and health impacts on all populations impacted by emissions from these sources, including populations experiencing a higher overall pollution burden, people of color and low-income populations. There is nothing in the record which indicates that this proposed action, if finalized, would have disproportionately high or adverse human health or environmental effects on communities with environmental justice concerns.

XI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Overview

This action is exempt from review by the Office of Management and Budget (OMB) because the proposed FIP, if finalized, would not constitute a rule of general applicability, as it proposes source specific requirements for electric generating units at six different facilities located in Texas.

B. Paperwork Reduction Act

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 2060–0667. Because the proposed source specific BART emission limits apply to only six different facilities, the Paperwork Reduction Act does not apply. *See* 5 CFR 1320.3(c).

Additionally, the proposed withdrawal of the Texas SO_2 Trading Program does not impose any new or revised information collection burden under the provisions of the Paperwork Reduction Act (PRA), 44 U.S.C. 3501 *et seq.* OMB has previously approved the information collection activities for the Texas SO_2 Trading Program as part of the most recent information collection request renewal for the CSAPR trading programs, which was assigned OMB control number 2060–0667. The withdrawal of the Texas SO_2 Trading Program does not change any collection requests required as part of the CSAPR trading programs. Furthermore, the withdrawal of the Texas SO_2 Trading Program will cause no change in information collection burden related to SO_2 requirements because the sources that are currently participating in the Texas SO_2 Trading Program have the same SO_2 monitoring and reporting requirements under the Acid Rain Program. Thus, the withdrawal of the Texas SO_2 Trading Program proposed in this action will not change any collection burden that these sources are subject to under either the CSAPR trading programs or the Acid Rain Program.

C. Regulatory Flexibility Act

I certify that this action will not have a significant impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. The proposed FIP action, if finalized, will apply to EGUs at six facilities, none of which are small entities as defined by the RFA.

D. Unfunded Mandates Reform Act

The EPA has determined that Title II of UMRA does not apply to this proposed rule. In 2 U.S.C. 1502(1) all terms in Title II of UMRA have the meanings set forth in 2 U.S.C. 658, which further provides that the terms ''regulation'' and ''rule'' have the meanings set forth in 5 U.S.C. 601(2). Under 5 U.S.C. 601(2), ''the term 'rule' does not include a rule of particular applicability relating to . . . facilities.'' Because this proposed rule is a rule of particular applicability relating to specific EGUs located at six named facilities, the EPA has determined that it is not a ''rule'' for the purposes of Title II of UMRA.

E. Executive Order 13132: Federalism

This proposed action does not have federalism implications. It 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.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This proposed rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments. Thus, Executive Order 13175 does not apply to this rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. Therefore, this action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk. Since this action does not concern human health, EPA's Policy on Children's Health also does not apply.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This proposed action is not subject to Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

Section 12 of the National Technology Transfer and Advancement Act (NTTAA) of 1995 requires Federal agencies to evaluate existing technical standards when developing a new regulation. To comply with NTTAA, the EPA must consider and use ''voluntary consensus standards'' (VCS) if available and applicable when developing programs and policies unless doing so would be inconsistent with applicable law or otherwise impractical. The EPA

[355] See *https://www.epa.gov/so2-pollution/sulfur-dioxide-basics#effects.*

[356] See *https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm.*

believes that VCS are inapplicable to this action. This action does not require the public to perform activities conducive to the use of VCS.

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.

The EPA believes that the human health or environmental conditions that exist prior to this action 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. As explained further in Section X, the EPA's screening analysis provides an assessment of indicators related to environmental justice and overall pollution burden and demonstrates the potential for disproportionate and adverse effects on the areas located near at least one of the facilities subject to this action.

The EPA believes that this action, if finalized, is not likely to change the human health or environmental conditions, unrelated to SO_2 emissions, that exist prior to this action and that 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. For example, this action is not expected to reduce potential community impacts associated with ozone, lead paint, or RMP facility status. However, the action, if finalized, is expected to reduce any potential existing disproportionate and adverse effects associated with SO_2 emissions from the sources covered by this action. This action, if finalized, will significantly reduce SO_2 emissions in the State of Texas, which is anticipated to improve air quality. The analyses and proposed requirements included in this proposed rulemaking are consistent with and commensurate with the Regional Haze Rule and how that rule functions. As discussed in Section X, exposure to SO_2 is associated with significant public health effects.

For informational purposes in a manner consistent with both the CAA and E.O. 12898, the EPA conducted an EJScreen analysis, considered a large radius around the BART facilities as well as environmental indicators beyond the scope of this action, as discussed in Section X. The EPA intends to promote fair treatment and provide meaningful involvement in developing the final action through the public notice and comment process. This will include a virtual public hearing and public comment period, as well as additional outreach to promote public engagement. Information related to this action will be available on the EPA's website as well as in the docket for this action.

The information supporting this Executive Order review is contained in Section X of this Preamble as well as throughout the Preamble, and all supporting documents have been placed in the public docket for this action.

K. Determinations Under CAA Section 307(b)(1) and (d)

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the U.S. Court of Appeals for the D.C. Circuit: (i) when the agency action consists of ''nationally applicable regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, but ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.'' For locally or regionally applicable final actions, the CAA reserves to the Administrator complete discretion whether to invoke the exception in (ii).

This proposed action, if finalized, will be ''nationally applicable'' within the meaning of CAA section 307(b)(1). As set forth in Section V, the EPA proposes to deny the 2020 petition for partial reconsideration of our September 2017 Final Rule affirming 40 CFR 51.308(e)(4) and our subsequent 2020 denial of a 2017 petition for reconsideration of that rule. This denial, if finalized, will once again reaffirm the continued validity of the CSAPR better-than-BART provision at 40 CFR 51.308(e)(4), which is a nationally applicable regulation. The EPA's proposed denial of the 2020 petition for partial reconsideration is dependent on the EPA's promulgation of source-specific BART emissions limits in Texas. As explained in Section IV, the proposed withdrawal of the Texas SO_2 Trading Program and proposed adoption of source-specific BART limits for EGUs in Texas allows the EPA to restore the analytical basis for 40 CFR 51.308(e)(4), as set forth in our September 2017 Final Rule affirming the 2012 CSAPR better-than-BART determination. The CSAPR better-than-BART provision at 40 CFR 51.308(e)(4) allows States covered by a CSAPR trading program in 40 CFR 52.38 or 52.39 (or a SIP-approved trading program meeting these requirements) to implement those trading programs in lieu of source-specific BART limits for BART-eligible EGU sources. Currently, 19 States located across five of the ten EPA regions and in seven judicial circuits are included in at least one of the CSAPR trading programs and rely on these programs in lieu of source-specific BART, pursuant to 40 CFR 51.308(e)(4). The EPA's restoration of the analytical basis for 40 CFR 51.308(e)(4) would thus affect all of these States and BART-eligible EGU sources located in these States.

In the alternative, to the extent a court finds this proposal, if finalized, to be locally or regionally applicable, the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on a determination of ''nationwide scope or effect'' within the meaning of CAA section 307(b)(1).[357] First, this proposed action, if finalized, would be based on a determination of nationwide scope or effect for the same reasons identified above with respect to this action being ''nationally applicable''—namely, because it would reaffirm the validity of 40 CFR 51.308(e)(4). Currently, 19 States would be directly affected by our decision to reaffirm the continued validity of the CSAPR better-than-BART provision at 40 CFR 51.308(e)(4), and these States represent a wide geographic area falling within nine different judicial circuits.[358] Second, underlying the EPA's decision to reaffirm the validity of 40 CFR 51.308(e)(4) is our proposed action to withdraw the Texas SO_2 Trading Program and instead to

[357] In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

[358] In the report on the 1977 Amendments that revised CAA section 307(b)(1), Congress noted that the Administrator's determination that the ''nationwide scope or effect'' exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95–294 at 323–24, reprinted in 1977 U.S.C.C.A.N. 1402–03.

adopt source-specific BART limits for SO_2 at the relevant Texas EGU sources, together with PM BART limits as part of a complete BART analysis that is required by the withdrawal of the Texas SO_2 Trading Program as a BART alternative, as explained in Section IV. Thus, the source-specific BART control program for Texas is a necessary component of the proposed action because it provides the basis for the reaffirmation of our conclusion that CSAPR serves as an alternative to BART for EGU sources located in over half the States in the country. As explained in Section V, our proposed reaffirmation of the CSAPR better-than-BART provision depends on our finalization and implementation of source-specific BART emissions limits for BART-eligible EGUs in Texas, thus achieving (among other things) SO_2 emissions reductions comparable to the assumptions used in the September 2017 Final Rule affirming the 2012 CSAPR better-than-BART determination.

The Administrator intends to find that this is a matter on which national uniformity is desirable, to take advantage of the D.C. Circuit's administrative law expertise, and to facilitate the orderly development of the basic law under the Act. The Administrator also intends to find that consolidated review of this action in the D.C. Circuit will avoid piecemeal litigation in the regional circuits, further judicial economy, and eliminate the risk of inconsistent results for different States, and that a nationally consistent approach to implementation of CSAPR trading programs at EGUs nationwide to satisfy BART requirements constitutes the best use of agency resources.

For these reasons, this action, if finalized, will be nationally applicable or, alternatively, the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on a determination of nationwide scope or effect for purposes of CAA section 307(b)(1).

This proposed action is subject to the provisions of section 307(d). CAA section 307(d)(1)(B) provides that section 307(d) applies to, among other things, ''the promulgation or revision of an implementation plan by the Administrator under [CAA section 110(c)].'' 42 U.S.C. 7407(d)(1)(B). This action, if finalized, among other things, promulgates a Federal implementation plan pursuant to the authority of section 110(c). To the extent any portion of this proposed action is not expressly identified under section 307(d)(1)(B), the Administrator determines that the provisions of section 307(d) apply to this proposed action. *See* CAA section 307(d)(1)(V) (the provisions of section 307(d) apply to ''such other actions as the Administrator may determine'').

List of Subjects

40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxides, Visibility, Interstate transport of pollution, Regional haze, Best available retrofit technology.

40 CFR Part 78

Environmental protection, Administrative practice and procedure, Air pollution control, Reporting and recordkeeping requirements, Sulfur dioxides.

40 CFR Part 97

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Nitrogen dioxide, Reporting and recordkeeping requirements, Sulfur dioxides.

Michael S. Regan,
Administrator.

For the reasons stated in the preamble, the EPA proposes to amend 40 CFR parts 52, 78 and 97 as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart SS—Texas

§ 52.2270 [Amended]

■ 2. Section 52.2270 is amended in the second table in paragraph (e), titled ''EPA Approved Nonregulatory Provisions and Quasi-Regulatory Measures in the Texas SIP,'' by removing the entry ''Texas Regional Haze BART Requirement for EGUs for PM''.

■ 3. Section 52.2287 is added to subpart SS to read as follows:

§ 52.2287 Best Available Retrofit Requirements (BART) for SO_2 and Particulate Matter; What are the FIP requirements for visibility protection?

(a) *Applicability.* The provisions of this section shall apply to each owner or operator, or successive owners or operators, of the coal or natural gas burning equipment designated below.

(b) *Definitions.* All terms used in this part but not defined herein shall have the meaning given them in the CAA and in parts 51 and 60 of this subchapter. For the purposes of this section:*24-hour period* means the period of time between 12:01 a.m. and 12 midnight.

Air pollution control equipment includes selective catalytic control units, baghouses, particulate or gaseous scrubbers, and any other apparatus utilized to control emissions of regulated air contaminants that would be emitted to the atmosphere.

Boiler-operating-day means any 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time at the steam generating unit.

Daily average means the arithmetic average of the hourly values measured in a 24-hour period.

Heat input means heat derived from combustion of fuel in a unit and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources. Heat input shall be calculated in accordance with 40 CFR part 75.

Owner or Operator means any person who owns, leases, operates, controls, or supervises any of the coal or natural gas burning equipment designated below.

PM means particulate matter.

Regional Administrator means the Regional Administrator of EPA Region 6 or his/her authorized representative.

Unit means one of the natural gas or coal-fired units covered in this section.

(c) *Emissions Limitations and Compliance Dates for SO_2.* The owner/operator of the units listed in table 1 to paragraph (c)(1) of this section shall not emit or cause to be emitted pollutants in excess of the following limitations from the subject unit. Compliance with the requirements of this section is required as listed below unless otherwise indicated by compliance dates contained in specific provisions.

(1) Coal-Fired Units:

TABLE 1 TO PARAGRAPH (c)(1)

Unit	Proposed SO_2 emission limit (lb/MMBtu)	Compliance date (from the effective date of the final rule)
Martin Lake 1	0.08	3 years.
Martin Lake 2	0.08	3 years.
Martin Lake 3	0.08	3 years.
Coleto Creek 1 ...	0.06	5 years.
Fayette 1	0.04	1 year.
Fayette 2	0.04	1 year.
Harrington 061B	0.06	5 years.
Harrington 062B	0.06	5 years.
W. A. Parish WAP5.	0.06	5 years.
W. A. Parish WAP6.	0.06	5 years.
Welsh 1	0.06	5 years.

(2) W. A. Parish WAP4 shall burn only pipeline natural gas, as defined in 40 CFR 72.2. Compliance for this unit shall be as of [EFFECTIVE DATE OF FINAL RULE].

(d) *Emissions Limitations and Compliance Dates for PM.* The owner/operator of the units listed below shall not emit or cause to be emitted pollutants in excess of the following limitations from the subject unit. Compliance with the requirements of this section is required as listed below unless otherwise indicated by compliance dates contained in specific provisions.

(1) Coal-Fired Units at Martin Lake Units 1, 2, and 3; Coleto Creek Unit 1; W. A. Parish WAP5 and WAP6; Welsh Unit 1; Harrington Units 061B and 062B; and Fayette Units 1 and 2.

(i) Normal operations: Filterable PM limit of 0.030 lb/MMBtu.

(ii) Work practice standards specified in 40 CFR part 63, subpart UUUUU, Table 3, and using the relevant definitions in 63.10042.

(2) W. A. Parish WAP4 shall burn only pipeline natural gas, as defined in 40 CFR 72.2.

(3) Compliance for the units included in paragraph (d) of this section shall be as of [EFFECTIVE DATE OF FINAL RULE].

(e) *Testing and monitoring.* (1) No later than the compliance date of this regulation, the owner or operator shall install, calibrate, maintain and operate Continuous Emissions Monitoring Systems (CEMS) for SO_2 on the units covered under paragraph (c)(1) of this section. Compliance with the emission limits for SO_2 for those units covered under paragraph (c)(1) shall be determined by using data from a CEMS.

(2) Continuous emissions monitoring shall apply during all periods of operation of the units covered under paragraph (c)(1) of this section, including periods of startup, shutdown, and malfunction, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments. Continuous monitoring systems for measuring SO_2 and diluent gas shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. Hourly averages shall be computed using at least one data point in each fifteen minute quadrant of an hour. Notwithstanding this requirement, an hourly average may be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant in an hour) if data are unavailable as a result of performance of calibration, quality assurance, preventive maintenance activities, or backups of data from data acquisition and handling system, and recertification events. When valid SO_2 pounds per hour, or SO_2 pounds per million Btu emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks, or zero and span adjustments, emission data must be obtained by using other monitoring systems approved by the EPA to provide emission data for a minimum of 18 hours in each 24-hour period and at least 22 out of 30 successive boiler operating days.

(3) Compliance with the requirement for the unit covered under paragraphs (c)(2) and (d)(2) of this section shall be determined from documentation demonstrating the use of pipeline natural gas as defined in 40 CFR 72.2.

(4) Compliance with the PM emission limits for units in paragraph (d)(1) of this section shall be demonstrated by the filterable PM methods specified in 40 CFR part 63, subpart UUUUU, table 7.

(f) *Reporting and Recordkeeping Requirements.* Unless otherwise stated all requests, reports, submittals, notifications, and other communications to the Regional Administrator required by this section shall be submitted, unless instructed otherwise, to the Director, Air and Radiation Division, U.S. Environmental Protection Agency, Region 6, to the attention of Mail Code: ARD, at 1201 Elm Street, Suite 500, Dallas, Texas 75270. For each unit subject to the emissions limitation in this section and upon completion of the installation of CEMS as required in this section, the owner or operator shall comply with the following requirements:

(1) For each SO_2 emission limit in paragraph (c)(1) of this section, comply with the notification, reporting, and recordkeeping requirements for CEMS compliance monitoring in 40 CFR 60.7(c) and (d).

(2) For each day, provide the total SO_2 emitted that day by each emission unit covered under paragraph (c)(1) of this section. For any hours on any unit where data for hourly pounds or heat input is missing, identify the unit number and monitoring device that did not produce valid data that caused the missing hour.

(3) For the unit covered under paragraphs (c)(2) and (d)(2) of this section, records sufficient to demonstrate that the fuel for the unit is pipeline natural gas.

(4) Records for demonstrating compliance with the SO_2 and PM emission limitations in this section shall be maintained for at least five years.

(g) *Equipment operations.* At all times, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the unit including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Regional Administrator which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of the unit.

(h) *Enforcement.* (1) Notwithstanding any other provision in this implementation plan, any credible evidence or information relevant as to whether the unit would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed, can be used to establish whether or not the owner or operator has violated or is in violation of any standard or applicable emission limit in the plan.

(2) Emissions in excess of the level of the applicable emission limit or requirement that occur due to a malfunction shall constitute a violation of the applicable emission limit.

■ 4. Section 52.2304 is amended by revising the paragraph (f) heading and adding paragraph (f)(3) to read as follows:

§ 52.2304 Visibility protection.

* * * * *

(f) *Measures Addressing Disapproval Associated with NO_X, SO_2, and PM.* * * *

(3) The deficiencies associated with PM with respect to best available retrofit technology under section 169A of the Clean Air Act, as identified in EPA's disapproval of the regional haze plan submitted by Texas on March 31, 2009, are satisfied by § 52.2287.

■ 5. Section 52.2312 is amended by revising paragraph (a) and removing and reserving paragraph (b).

The revision reads as follows:

§ 52.2312 Requirements for the control of SO_2 emissions to address in full or in part requirements related to BART, reasonable progress, and interstate visibility transport.

(a) The Texas source-specific BART limits set forth in § 52.2287 constitute the Federal Implementation Plan provisions fully addressing Texas' obligations with respect to best available retrofit technology under section 169A of the Act and the deficiencies associated with EPA's disapprovals in

§ 52.2304(d) and partially addressing Texas' obligations with respect to reasonable progress under section 169A of the Act, as those obligations relate to emissions of sulfur dioxide (SO_2) from electric generating units (EGUs).

* * * * *

PART 78—APPEAL PROCEDURES

■ 6. The authority citation for part 78 continues to read as follows:

Authority: 42 U.S.C. 7401–7671q.

§ 78.1 [Amended]

■ 7. Section 78.1 is amended in paragraph (a)(1)(i)(D) by removing ''FFFFF,'' and by removing and reserving paragraph (b)(18).

§ 78.3 [Amended]

■ 8. Section 78.3 is amended in paragraphs (a)(4), (c)(7)(iv), and (d)(2)(iv) by removing ''FFFFF,'' and in paragraph (d)(6) by removing ''FFFFF,'' and ''§ 97.906,''.

§ 78.4 [Amended]

■ 9. Section 78.4 is amended:

■ a. In paragraph (a)(1)(iv)(A), by removing ''CSAPR SO_2 Group 2 unit or CSAPR SO_2 Group 2 source, or Texas SO_2 Trading Program unit or Texas SO_2 Trading Program source'' and adding in its place ''or CSAPR SO_2 Group 2 unit or CSAPR SO_2 Group 2 source''; and

■ b. In paragraph (a)(1)(iv)(B), by removing ''CSAPR SO_2 Group 2 allowances, or Texas SO_2 Trading Program allowances'' and adding in its place ''or CSAPR SO_2 Group 2 allowances''.

PART 97—FEDERAL NO_X BUDGET TRADING PROGRAM, CAIR NO_X AND SO_2 TRADING PROGRAMS, AND CSAPR NO_X AND SO_2 TRADING PROGRAMS

■ 10. The authority citation for part 97 is revised to read as follows:

Authority: 42 U.S.C. 7401, 7403, 7410, 7426, 7601, and 7651, *et seq.*

■ 11. Revise the heading for part 97 to read as set forth above.

Subpart FFFFF—[Removed and Reserved]

■ 12. Remove and reserve subpart FFFFF, consisting of §§ 97.901 through 97.935.

[FR Doc. 2023–08732 Filed 5–2–23; 8:45 am]

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